

# MACMILLAN'S MAGAZINE.

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UNIVERSAL INFORMATION AND "THE ENGLISH CYCLOPÆDIA."

BY THE EDITOR.

THE time was when every man whose business lay in intellectual matters was bound to be his own encyclopædia. Having picked up, one way or another, the amount of knowledge which he required, he walked about, carrying this stock with him, increasing it as means offered, and serving as a source of information to which others could refer that chanced to be in his neighbourhood. Nor, in those days, did the knowledge of a man so situated necessarily fall far short of all the knowledge that was to be obtained. The world was yet young ; and, as all that we call learning or erudition really resolves itself into history —into a recollection of what has happened among men, or men have thought and found out—the burden of legends that had been rolled down from the beginning of things in any one land was not too great for one man's memory. Homer, if there was such a person, was not only the poet of the Greek world, but also a walking compendium, from one Greek "storefarm" to another, of all the history and science then existing on both sides of the Ægean. Herodotus carried in his single head a recollection, most diligently got together, of all that it seemed worth while for a Greek to know respecting the present and the past of mankind as ranged round and away from the vast margin of the Mediterranean. What with the strong memories of those old' worthies, what with the small helps of tablets, note-books, and scrolls, which the later of them may have had about

them, it does not appear that, in any article of erudition, they could be taxed with ignorance, or with knowledge under the highest contemporary mark. Later still, the alleged necessity of something like universal learning, each one for himself, among those whom nations would recognise as their intellectual chiefs, was not palpably opposed to the fact. When Plato philosophized, it was not the mere flight of a splendid speculative faculty in empty space, but the action of a mind that had grasped and digested all accessible knowledge respecting the whole world of matter and men round which it flew and whose sublimer relations it sought to establish. In Aristotle, even more conspicuously, we behold, with wonder unabated to this day, universality and minuteness of acquisition, combined, as a matter of course, with the spirit of philosophic system.

Nor did the tradition which required universality of knowledge in those who would tower highest in a community, as its men of intellect, die out with the Greeks. Different ages and countries have had different notions as to the kind of intellectual functionary most to be held in honour. Over large tracts of time, as with us perhaps now, the poet has had the undisputed pre-eminence, and been voted, *nem. con.*, the tip-top of created beings ; but there have been times when—possibly because a poet of the right order seemed a blessing past praying for—men have been content to

offer their highest worship to the philosopher, or even, at a pinch, to such a tortoise or toad of earth as the scholar or historian. The Romans, in this respect, made a rather characteristic choice. For a time, at least, it was neither poet, philosopher, nor historian that the imperial people honoured the most and hoisted on their shoulders with the loudest shouts, but that nondescript compound of the practical parts of all three to whom they gave the name of orator. But then what a prodigy their orator had to be, to satisfy them ! According to Cicero, for one real orator that was produced, Nature produced poets, philosophers, and historians, nay generals and statesmen also, by the bushel ; and what he meant by making this assertion, over and above the sly reference he may have had to No. 1, we see better when we read his inventory of the things necessary for the outfit of a first-class orator. We flatter ourselves that *we* have orators among us ; but how our House-of-Commons men would stare if this enumeration of Cicero's were made imperative ! First of all, universal knowledge—not the smattering on many subjects which pleaders must acquire in handling their successive briefs, but real well-grounded knowledge in every possible department of science, art, and practice. The orator must know as much of philosophy as the philosopher, as much of history as the historian, as much of war as the general, as much of law as the jurist, as much of business as the merchant, and so on ! Then, in addition to this, and to vitalize all this heap of acquisitions, there must be the whole set of the orator's special qualifications besides—the voice, the presence, the energy, the training in rhetoric, the action, action, action. In other words, it was upon the orator rather than upon any other man that the Romans of this age laid that awful necessity of being his own encyclopædia which the Greeks had laid rather upon their poets and philosophers—with this farther demand, that the orator had to be an encyclopædia beautifully bound, that could stand on its legs at a moment's notice, gesticulate and speak to

perfection, and act on the nerves of a crowd like an electric battery. A generation or two later, as we see from the Dialogue of Tacitus concerning Eloquence, it had begun to be a question among the cultivated Romans whether after all oratory was the grandest of human occupations, and whether it might not be more judicious for a man of intellect to retire into the country, and there, if he *would* work with his brains, work in quiet, and merely "sing to the praise and glory of God," like the parish-clerk in Lincolnshire, "a little 'ymn of his own compositin'." But, wheresoever and in whatsoever one were to work, it was required of every man who would be an intellectual chief among his fellows, that he should be master of the universal learning of his time.

The same tradition, with the same evidence of facts at first sight to make it plausible, has descended even into the modern world. In the early centuries of our era there were men in the monasteries or about the Courts of Europe—take our own Bede, or the Alcuin whom we lent to Charlemagne, for example—who, according to the rude standard of the age, were prodigies of universal lore and made it subservient to theology. Then, on the first establishment of the great European Universities, their luminaries—the Abelards, the Aquinases, and others of those princes of the schools who lectured to their thousands of pupils—were men who, though their business was logic and speculation, would not have stood their ground in the midst of such packs of hungry students clamant for knowledge unless they had been living reservoirs of the *totum scibile*. And what of the first great poet in any of the European vernaculars ? Is it not part of the greatness of Dante that, even in a poem which is unique among the productions of genius as the expression of one extraordinary personality, he presents to us in summary the entire system of thought and knowledge of mediæval Italy ? A while after Dante it was when, in consequence of the so-called Revival of Letters, Scholarship or Learning in a special sense of the word—more particu-

larly as including Greek, Latin, and Oriental Philology, and the necessary accompaniments—became, for a considerable period, the most honoured form of intellectual activity everywhere in Europe. The sixteenth and seventeenth centuries were peculiarly the age of scholars—not in the sense that there have not been individual scholars since comparable, with the advantage too of new lights on their side, to the scholars of those centuries; but in the sense that scholarship was then the kind of intellectual occupation most in requisition, that it was the scholars who were then pensioned and laurelled, and that an unusual amount of the mind that might have been available for intellectual purposes generally then ran towards erudition and was locked up in the exercise of memory. Looking back now, it is the eagles and lynxes of those centuries, their great poets and their great men of science, that we deservy with admiration; but decidedly the largest amount of contemporary notice was given to the tortoises. Or, if a mind of the poetical or the speculative order—a Bacon, a Galileo, or a Spenser—did, by reason of the magnitude of its display, arrest the due degree of attention, it was always supposed, and justly supposed, that that mind was a full and not an empty one—that, whatever might be its constitutional mode of action, it was provided with a vast fund of material in the shape of universal acquisition. There were men, on the other hand, who perhaps would have been called more expressly men of erudition, but who, because they were not mere plodders, but combined with their erudition a competent share of wit, poetic vigour, or active faculty, rivalled the very greatest, and were heard of over larger tracts of space. Such were Erasmus, Buchanan, and Grotius.

But this age of the supreme reputation of scholarship passed away; and there came in that era of more multifarious activity, extending down to the present day, in which Learning and its votaries have been packed away in corners, and in which, though the glance

of favour still follows them, the public gaze is distracted by hosts marching hither and thither under many varied banners, and yet all equally in the service of Intellect. We have our men of science, our artists, our engineers, and so on, in such crowds as were never seen before; our subdivisions of each class are becoming more numerous, and the distances between classes and subdivisions are widening; and in each, apart from the others, such excellence is attainable as shall be dignified with the name of greatness. Fortunately, however, there still lingers among us, amid all this complexity of intellectual occupation, something of the old conception that no man can do much without a large basis of acquired knowledge, and something of the old respect for knowledge that seems universal. Remembering in a vague way the old division of Intellect (still the most useful we have for popular purposes) into its chief modes or faculties—Memory, Reason, and Imagination—we are aware of three main kinds of eminence that there may be and are among intellectual men, each by itself deserving the name of greatness. There is the greatness of a mind in which memory is the paramount mode—i.e. the greatness of vast information or erudition; there is the greatness of a mind in which the speculative faculty has been paramount—i.e. the greatness of the Thinker; and there is the greatness of a mind in which Imagination has determined the form of the results—i.e. the greatness of the Poet. Object as you like to metaphysical distinctions of this sort, you cannot, for the life of you, avoid some recognition of this classification if you talk about men; and you cannot safely blot out such distinctions till you have first made them very strongly. Now, whatever preferences we may have for greatness of the two last kinds, we do welcome among us anything approaching to greatness of the first. A man of universal information, a man with the whole history of the world in the back of his head, like Niebuhr, or Bunsen, or Hallam, has the mass and force of an

elephant in the society in which he is. You are discussing a matter beautifully, not knowing anything about it, but simply out of the ready resources of your own mind ! Tramp, crash, goes the elephant, if he can be stirred to it ; and your little fabric is gone. You were wrong in your dates and precedents ; there was some confounded Egyptian or Lower Greek, of whom you had never heard, who had settled all that ages before you were born ; if you would take the trouble to refer to such and such a work, page so and so, you would find a complete account of it, and be highly interested ! Or, if the elephant is good-humoured and communicative, and you are docile, and can be happy without the incessant clack-clack of your own tongue, what riches of lore and anecdote you might get out of him. Talk of a night with Burns ! All very good in its way ; but what a night one might have had also with Niebuhr or Porson ! This, we say, is felt whenever the opportunity is furnished by a man of the right order ; and, whatever amount of premium we may put on the Poet and the Philosopher, we have not ceased to reverence the man of erudition.

But this is not all. Even while making the distinction of minds according to the mood or faculty which is constitutionally, or by habit, paramount in them, we have not lost sight of the fact that the moods or faculties may alternate or co-exist in the same mind, and that in any case it is a certain total force or capacity of mind that is thrown into this or that faculty. And so, while, on the one hand, we cannot allow the title of greatness, on account of memory, to a mind which we recognise as deficient in judgment or invention—while we tacitly assume that an ass or a clod will remember only as an ass or a clod remembers, and will have, at the end of the chapter, only a farrago of recollections corresponding to its nature—in the same manner we are chary in supposing that there can be truly great speculation, a truly noble poetry, where there is a poor cargo in the memory. *Ex nihilo nil fit* ; and the material that any mind can work

with in any way can only consist in that mind's recollections. By extension it may be said that, as regards individuals, there can be no massive and powerful construction of intellect, of any kind whatever, where there is not solid and varied learning, whether accumulated through reading and tradition or by experience, and that, as regards communities, no great national literature can be found itself, be it in poetry or in philosophy, where the soil of acquired knowledge is not broad and rich. "We artists can't do without a little 'istory, ma'am," said a painter of some note to a lady of our acquaintance ; and the maxim which delighted Usher, though more general, is to the same effect : "*Nescire quid antea quam natus sis acciderit, id est semper esse puerum.*" "Not to know what happened before you were born is to be always a child." But as good a statement of the matter as is to be found anywhere is that given by a man who made some disturbance in his day, but is not now much heard of—the historian and geographer Pinkerton. "In all ages, since the invention of letters," he says in the preface to his *Inquiry into the History of Scotland*, "two opposite paths have conducted to the temple of fame—the path of GENIUS and that of ERUDITION. These qualities, in a lesser degree, bear the names of *Ingenuity* and *Learning*. Every one who has looked into literary history must know that Erudition or even Learning is perhaps a surer path to fame than Genius or Ingenuity; inasmuch as innumerable ancient works of mere learning have reached our time, whereas not one of mere genius has had that fortune. For Homer, Pindar, and the other famous poets, were all men as remarkable for learning as for genius ; which qualities conjoined alone stamp perfection on a work. Homer's learning arose from travelling and conversation, as Shakespeare's from books in his own language. Of all the ancient poets—that is, of those whose essential form is genius—it is impossible to point out one who was not profoundly learned ; if we only except Anacreon, whose

"remains are so few that we cannot judge of his learning from them. It is indeed as impossible to be a great writer without learning as to be wealthy without property, or to unite any other contradiction in terms. Nay, in modern times, men of vast erudition and men of vast genius have generally been contemporary in the same country—as Shakespeare and Saville, Milton and Selden, in England; Corneille and Salmasius in France; Tasso and Sigonius in Italy; Cervantes and Aldrete in Spain."

Though expressed in language a little out of fashion now, these remarks are sound; and the use of the word Ingenuity to denote a lesser form of what is called Genius might be happily revived. The special application which Pinkerton meant to make of his remarks was that, up to the time at which he wrote (1789), Scotland, owing to the want of means, had been a less learned country than England, and had consequently, though prolific in ingenious spirits and not without men of genius, been unable to generate or to support a literature so rich, firm, and varied as that of the sister nation. Had Pinkerton looked about him, he might have cited contemporary instances in farther illustration of his remark that the most powerful minds of a country are apt to be those who join learning to their other excellencies, and that great movements in speculation and strong bursts of creative genius in a nation, where such things occur, will be found to derive their nutriment, more or less visibly, from a surrounding loam and subsoil of unusual erudition. In England, Johnson, then just dead, and Burke, then still living, were both men who were regarded as prodigies of information. In Germany, as if to shatter by one absolute instance the notion that at least greatness of philosophic intellect might consist with a small stock of learning, or even be favoured by it, Kant—the man whose main work was a new analysis of the human mind itself, and who might be supposed therefore to require but a small load of external stuff for his purpose—

was, in reality, a man who had gone through the whole round of the physical sciences, knew all geography and all history, read the archives of all societies, and could entertain his guests with abundance of biographic anecdote from every land, and the last morsels of political gossip. Nay, in Scotland itself, whether or not Pinkerton was strictly just as to the past, there was to be confirmation of his main remark in the near future. James Watt, to whose kind of life-labour, as little as to Kant's, lore or history in excess might have seemed necessary—who needed only, one might have thought, mathematics of double strength, a knack of construction, and plenty of iron—is remembered yet as a man of the most universal information, and the most omnivorous appetite for reading, within as wide a circle of friends as any one then commanded. Scott found in him as much of even his own peculiar lore of history, antiquities, and legend as would have furnished forth another set of *Waverley* Novels. As regards Scott himself, according to no definition of learning save that of a pedant, could it be denied that he was a very learned man. Only the other day, too, in that Sir William Hamilton, a dilution of whose speculations, thirty years after the gist of them was published, has been trickling with strange effect over the field of English Theology, there was lost to Scotland a mind, not only of the hardest grasp, but of erudition that seemed boundless. England, the while, had amply within herself kept up her more ancient fame. In Coleridge, the English philosophic mind of richest and subtlest influence on those whose youth dates from between 1810 and 1830, the value of abundant and varied nutrition for the thinking faculty is strikingly seen. The fulness and retentiveness of Lord Macaulay's memory were proverbial; and he was also one of those men of prodigious information who pour it out in talk. Nor let poor De Quincey be forgotten—De Quincey, who, in his later days, flitted about like a small superannuated wizard in the lanes and highways of an obscure country neigh-

bourhood, a few miles from Edinburgh, while Macaulay's robust figure was known in the crowds of Westminster and Holborn, and whose death and burial in his place of retreat had scarce a notice from the newspapers in the year which removed Macaulay, but who was, nevertheless, a finer and deeper than Macaulay in some things, and whose volumes of stray remains, the gatherings from many periodicals, will hold, in the eyes of true criticism, the same relation to Macaulay's works that a tree of carved and filagreed silver might hold to a more square and solid work of highly burnished and yellower, but somewhat less precious, metal.

Alas! all the while that we speak of universality of knowledge the thing is impossible. There may, as we have said, have been a time when any one man could be the encyclopædia of his neighbourhood or country, and could hold in his single memory as much lore as his generation distributively possessed. *When* this time was—whether it ceased with Homer, or with Herodotus, or with Aristotle, or whether any of those mediaeval schoolmen, of whom we hear such incredible things, were really, in any tolerably strict sense, reservoirs of the *totum scibile* of the Europe of their days—we need not inquire. For us, at least, now, the time is irrecoverably past. *Our* universality of learning is but a figure of speech. Our Kants, our Hamiltons, our Hallams, our Bunsens, our Burkes, our Bentleys, or even their predecessors, the Seldens, the Ushers, the Grotii, the Salmassi, the Scaligars, were colossi of knowledge only relatively—Gullivers among the Lilliputians. A man seems learned to you who knows what *you* do not chance to know; and we wonder at the copiousness of some memories, for the same reason that the believers in Neptune worshipped in his temple—because it is the shields of the saved men that make the array on the walls, and there is no representation to tell us of the number of the drowned. For, consider a moment. At whatever time it was, if it ever was, that one man might know, in any plausible sense, as

much as all men knew besides, the world has been rushing on since then. Generation has followed generation, each with its millions of lives, and thousands of millions of events, with its battles, its treaties, its books; and, in grappling with this mere increase of what is ordinarily called history, the powers of the most prodigious memory that there is would be baffled, burst, and overwhelmed. Try some of your reputedly learned friends. Ask any of them who has not recently been cramming on the subject, to repeat Macaulay's feat of enumerating in chronological order the Archbishops of Canterbury. Or be more merciful, and only beg one of them to be good enough, in this time of interest in America, to favour you on the spot with a list of the presidents of the United States. Yet these are but drops in the ocean of past facts of which Universal History consists. Then, separate from History or Biography, in the common acceptation, but equally matters to be grasped by him who aspires to universal knowledge, are all those orders of observations, ideas, and conclusions, which form the cycle of the sciences and arts—the great sciences of matter and life, with their thousand and one applications and ramifications. What activity in these during the few ages past! Who, in addition to the bulk of the History of the World, ordinarily so called, from the first pant of Humanity until now, shall pretend to keep up with mathematical knowledge to its last developments in the hands of Cayley, and Sylvester, and Irish Sir William of the Quaternions—with astronomical knowledge, to its state in the mind of Herschel—with mechanical science, as represented in its chief living teachers, and in the mills and mesh-work of our globe—with the science and art of metallurgy, as they are being expounded at large in Dr. Percy's work—with chemistry as far as Faraday—with anatomy and all biological science, as known to our Sharpeys, and Huxleys, and Owens—and with the whole medley of pure or mixed sciences besides, as seen in conclave in the Royal Society,

or on circuit in the British Association? Sometimes a demarcation is drawn by the votaries of these sciences, or of science in general, between the kind of knowledge of which these sciences consist, and that which is more usually known as learning or knowledge of history. Convenient in a certain respect, the demarcation, in other respects, is vicious. These sciences themselves belong to History; they are registers and summaries of what men have thought and found out. All recollection is History; any one science as it exists in the head of any one person is a recollection of so much observation or speculation; and the time may come when the law of gravitation itself, as we now read it, shall be chiefly interesting as the mode of human thought of a particular era. But, whether all knowledge may philosophically be resolved into History or not, this is certain, that all knowledge is too much for us. Universal knowledge is impossible. That proportion which the skull of man bears to the dome of heaven above it, which our Gothic forefathers called the skull of the giant Ymer, the same proportion our capacity for knowing or remembering bears to all that is to be known or remembered.

Hence, as has been hinted, a perception among the judicious that there may be various kinds of learning, all entitled to the name. For one thing, any time this hundred years, the sole pretensions of Philology, once not unnatural, to the name of Learning, have been knocked on the head. Philology, or even the portion of it which consists of Greek and Latin Scholarship, remains, indeed, a department of universal learning surpassingly interesting, of rich fruit and promise, and with the singular advantage in its favour that it has been organized as no other has been for the uses of tuition. But when, as sometimes happens, a Greek and Latin scholar makes a blunder in a matter of recent history or of contemporary fact, he is so far less "learned" than the non-academic person who can correct him. To know something of the municipal

history of London, of its divisions into wards and parishes, and the like, is as much a bit of "learning" as to know the constitution of a Roman colony. If a man were thoroughly up in the political history of Europe since 1789, not only would his intelligence of passing affairs and his worth for any public practical purpose be greater than that of any classical scholar going who had not that knowledge, but he would be entitled to accuse the scholar of a disgraceful defect of "learning." And so, in a thousand ways, Learning—that which really and truly ought to be called Learning—divides itself into pools and streams. An Englishman may be very learned, as Pinkerton thinks Shakespeare was, through the medium of his own English tongue—may be learned now, through this medium, even about the Greeks and Romans. Then there is the learning of the Mathematician, the learning of the Chemist, the learning of the Physiologist, the learning of the Natural Historian, the learning of the Political Economist, and so on. We do not live now in the seventeenth century; and whoever has a considerable fund of information in any one of these departments of science is as much entitled to kick out of his way the mere grammarian, or the mere plodder in Church History, or the mere searcher in the antiquities of Literary History, as any of these gentlemen would be to return the compliment. As there are various crafts and intellectual walks, so that kind of knowledge which is the best working capital in each is true learning in its place. Out of the whole accumulation of existing or accessible knowledge let every man help himself, and let each be tolerant of a choice or a possession different from his own.

But what of him who will be content with no one branch of knowledge, who will range widely, who will be a power at large in the realm of intellect, who retains the old aspiration after the *totum scibile*, who craves after as near an approach to universality of information as the limits of things will permit? Life is short for such a person, be his facul-

ties of acquisition what they may ; and, since he cannot learn all, what shall he learn, and what let go ? Similar, and indeed identical, within a narrower field, is the question as to the kind of instruction to be imparted to youth in the process of general, as distinct from special, education. The child has but a few years at school, the youth but a few years more at college ; what shall be taught them during these years of training ? The knowledge imparted to youth, it is said, ought to be that which will prove of most worth, which will be the best working capital throughout life. To which proposition, rightly understood, there can be no objection. But what a problem to determine absolutely what cannot be of use ! There is a notion abroad as if the wave of contemporary facts and doctrines amid which we live were to all intents and purposes our sole proper intellectual element. This is what Time has rolled down to us ; as it is our inheritance, so should it be our capital to work with. What our own age holds in solution in a natural and unforced way amounts actually, without any trouble on our part, to the whole essence of the Past so far as it retains vitality and productiveness ; whatever is foregone and forgotten is defunct, and why angle back with our antiquarian fishing-rods in a sea of refuse ? Count your pigs, says Mr. Roe buck ; take stock of the four-footed things on your own farm or within your own neighbourhood ; what have you to do with old rubbish about Jehoshaphat and Je-roboam ? In the positive part of this advice, Dr. Arnott, from whom Mr. Roe buck borrowed it, put in a humorous form a just maxim of education which he has done much to enforce in the course of his life ; but, if the negative part is Mr. Roe buck's own, we fear he has not fathomed that depth of sound psychology which the old woman reached when she told of the intellectual and moral comfort she derived from "that grand word Mesopotamia," pronounced so frequently in the sermon. To the effects of sound add those of association. The valley of Jehoshaphat

may seem full of dry bones ; but prophesy unto these dry bones, and they shall live. And so, even when the doctrine which Mr. Roe buck was driving at is expressed in more exact and perfect shape—when it is demonstrated to us that the most useful knowledge, and therefore the proper knowledge to be imparted in rational education, must necessarily be that which includes the last and strongest certainties in the sciences of human health and conduct—there is danger of a Chinese narrowness of view as to what else may be useful. In short, there must be great licence in this matter ; and, just as even those who hold the Utilitarian theory of Morals profess that it would be absurd to expect a calculation of utilities to be gone through with reference to every intended action, and that in the main past experience in such things has become organic in the form of an instinct, so it is with knowledge. To be up in the best contemporary science, not to be behindhand in the facts, conclusions, and results, which form the visible working capital of our own generation as a whole, may be the most essential learning for a man of the present who will rule in the intellectual realm, whether as a poet or as a thinker ; but let us be cautious in saying, for such a man, what knowledge shall be refuse. A dead frog hung on an iron rail, and twitching or seeming to twitch its limbs, might appear as fatherless and motherless and kinless a fact as could well be ; and yet out of such a waif of a fact has come the whole science of Galvanism. For aught we know, the whole past history of the world may be a yet unexplored wilderness of dead frogs hanging on iron railings, and wasting their twitches on the desert air. At least, then, let those few in every community who will be men of universal lore in the old sense, have the full liberty of the wilderness. It is enough to lay down the law, that what shall justly be called learning varies with the age, that thorough and complete learning in any age must involve all that exists as History in that age down to its latest

tittle, and so that any scholar now that should be learned only in the range of things that formed the lore of Grotius, and should not be widely and accurately informed in those sciences and arts which have come into being since Grotius lived, would not be the man of learning in this time that Grotius was in his.

Whether one is to help oneself to the species of information that one wants, or is to strive after universal information, much of the necessary means consists now, as it has consisted in all ages since the very earliest, in access to books. Observation, conversation, and experience are wondrous caterers even now, and one may grow fat even on them alone ; but, since Homer's time or thereabouts—if, indeed, Homer himself had not a private subscription at Mudie's—reading and the convenience of books have been the sovereign sources of knowledge for those who have possessed it in large extent. The history of the world's learning, in short, is the history of libraries ; and the measure of the learning of any particular country now, and of the intellectual strength that may be dependent on learning, is furnished by the number, the size, and the accessibility of its libraries. To found a library where one did not exist has been in many a case the most splendid public service that a king could have thought of ; and those who have more money than they know what to do with might find this mode of doing good still worth their consideration. As it is, who shall calculate the amount of nutritive juice that finds its way into the veins of our body-politic, through a thousand pipes and channels, from the central reservoir of the British Museum, and from the other libraries, great and small, distributed through the Empire ? If Scotland has, in any degree, made up her leeway in point of learning since Pinkerton's time, it is because she has since then increased the number of her libraries, although in this respect there is still much for Scottish patriotism to effect north of Edinburgh. For, though it is a great thing to have, on a few shelves in private houses, the master-

pieces of our own British, or even of general literature—the select classics of different lands and tongues, whether in Poetry, Philosophy, or History—this does not answer to the idea of a library that shall feed and sustain the learning of a district. De Quincey it was who, borrowing a mode of speaking which he had heard from Wordsworth, made a distribution of the books comprising universal literature into two kinds—Books of Knowledge and Books of Power. By the last he meant those classics of various kinds—few, in proportion, in any language—in which the essential character is that they rouse, stir, delight, and warm, or even irritate and enrage the mind, in a subtle and complex manner, through art and genius, rather than convey information. These are the classics or master-works ; and to have these or a few of them by one as one's own property, is to have the means always at hand of the highest enjoyment and the richest culture. The Books of Knowledge, on the other hand, are the myriads and myriads of books besides, whose main aim it is to convey information—books of facts, books of receipts, books of instruction in the thousand and one sciences, books of technical knowledge, Grammars, Lexicons, Atlases, the Statutes at large, Almanacks, County-histories, Directories, Pharmacopœias. These form the main ocean of books in all languages, on whose coarse multitudinous breadth the true Books of Power are discernible *nantes rari*. So much for Wordsworth's and De Quincey's distinction. It will not perhaps bear very strict application ; for in reality the two orders of books shade inextricably into each other. Much of the power of books recognised as of the highest power depends really on the matter of information which they convey ; and books that profess to be chiefly books of knowledge may take rank among books of power through the force of their form and style as well as through the exciting greatness of their matter. The distinction, nevertheless, has a certain obvious worth ; and one may say, in terms of it, that

Books of Power will take care of themselves, and that it is abundance and variety more peculiarly of Books of Knowledge—of that immense class of books that have no persuasive voices and no wide circles of private friends—that ought to be aimed at in great public libraries. It is in vast accumulations of such books, forming as it were colossal organs of memory expressly instituted for the general mind, that communities have the security for the maintenance of learning among them, and of all that learning involves—which may include, unless Pinkerton was more mistaken than appears, the prospect of long being able to procreate additional Books of Power.

The liberty of libraries, therefore, is what our men of learning will always crave ; nor can any agency be devised that should reconcile such, or the society in which they live, to the slightest restriction of their right to range through libraries at their pleasure, seeking for knowledge even in theirdingiest recesses, and detaching from their main body, for the pursuit of it when the quantities become excessively minute, little forces of bookworms. What miraculous feats, too, may be done by single men, and these by no means monsters of untidiness, in grappling with the contents of libraries, there are records to attest. But yet the thought of being turned loose to find one's own way towards the acquisition of universal knowledge, or even of one variety of knowledge, amid the libraries of books in which it may be distributed, is positively appalling. The British Museum Library, allowing its duplicates and various editions to be set off against its deficiencies, may stand as representing the universal literature of the world, in all countries and languages, up to the present time. Well, when the library was scarcely so large as it is now, we made this calculation—that to pass all the volumes it contains merely through hand, allowing an average of half-an-hour for the inspection of each volume, would take a man eighty years, working three hundred days in every year, and ten hours in every day.

Moreover, by this process, all that would be acquired would only be a certain knowledge, at first hand, of universal Bibliography, or of books as objects, apart from their substance or contents. Hence, in all ages, since knowledge through books was first precious to man, the existence and multiplication of a class of books intended to economize time and trouble by saving to a great extent the necessity of ranging among books of knowledge generally. These are books of Digest and Reference, killing down and superseding other books in great masses and numbers. To trace the history of this class of books, and of the art of systematizing knowledge which they represent, might be very interesting. It has been by successive stages, even within the last two hundred years, that the art has reached its highest development in what are now familiarly known as Encyclopædias—a name formerly used to designate the round of sciences and arts deemed essential to a liberal education, but now used more extensively to imply Dictionaries of Universal Information, historical as well as scientific.

It needs not again to protest against the notion that such works ever can really supersede the use of libraries as such, the miscellaneous range which scholarship demands and has been accustomed to among all original books back to Adam, or to warn that the prevalence of such a notion, or exclusive faith in Encyclopædias, would be the death of true learning in a choking increase of that detestable conceit of proximate knowledge which is already rife enough. All this well understood, one need not be afraid of speaking too highly of the services rendered in the cause of learning by good Encyclopedias, not only to the public at large, but also to the wisest and most learned. These services are great and splendid. An Encyclopædia in any man's house is a possession in itself for him and his family ; an Encyclopædia chained at Charing-cross for public reference would be a boon to London worth fifty drinking-fountains. Let those judge who

know, and who, if they are honest, ought to confess. No need to go so far as that greatest of all existing Encyclopædias—of course, a German one—the *Encyclopædia* of Ersch and Gruber, which has been in course of publication since 1818, and which is not completed yet, although there are 123 quarto volumes of it, and, if you bought a copy, you would have to take it home in a cart. Instances nearer at hand are two *Encyclopædias*, or reissues of *Encyclopædias*, which have been recently brought out among ourselves, of more British dimensions and with more of British expedition—the eighth edition of the *Encyclopædia Britannica* in twenty-one volumes, price twenty-four guineas, and the *English Cyclopædia* of Mr. Charles Knight in twenty-two volumes, price twelve pounds. Oh, if the public at large but knew what secret pillage goes on night and day of these and similar works of reference! It is almost the interest of those who professionally instruct the public that these works should not be generally bought. What would become of them if there were an *Encyclopædia* in every house, or even in every parish? You read a fine leading article in a newspaper. It tells you much in small compass about the constitution of the United States, or the area of slavery, or about Mexico, or about the life of the last public man that has dropped into the grave, or about whatever other topic is uppermost; and the writer seems to you a man of extraordinary information. Whew! it is all out of the *Encyclopædia*; and the writer knew nothing about the matter himself till he prigged it out of the *Encyclopædia* last night for your benefit. An *Encyclopædia* is kept on tap for the contributors in every newspaper office; half the contents of a certain kind in all our Magazines and Reviews are only minced or mashed *Encyclopædia*. Within the last two paragraphs, in writing about *Encyclopædias*, I have myself consulted an *Encyclopædia*. Why is the public such an ass? Can't every man get an *Encyclopædia* for himself, and be independent?

Whoever wants an *Encyclopædia*, extensive and yet cheap, and compiled throughout on the principle of compendious and accurate information on all subjects rather than on that of collected individual dissertations, cannot do better than procure the *English Cyclopædia* of Mr. Charles Knight. There are other *Encyclopædias* which may have their characteristic excellencies, or even, in some things, superiorities; and of such a work as the new edition of the *Encyclopædia Britannica*, eclipsing, as it does, even the national fame of the previous editions, the country may well be proud. But, as a digest of universal knowledge which shall serve for the popular and miscellaneous purposes of all, and at the same time furnish materials and abstracts for those who are studying special subjects, and aim at substantial and exact science, the *English Cyclopædia* may be confidently recommended.<sup>1</sup> This also is a noble work; and it is to the credit of Mr. Knight that, during years of his life in which he has been so busy with important labours of his own, such a work should have gone on regularly to completion under his superintendence. The work is, so far as that might be, a reissue of the old "Penny Cyclopædia," published between 1833 and 1843, under the able and scholarly editorship of Mr. George Long, and the great merits of which are well known, and would have been more loudly proclaimed by those that had reason to know them best, but for a cowardly shame at acknowledging obligations to a work of reference which had the unfortunate word "Penny" as part of its name. What author, not a paragon of conscientiousness, could

<sup>1</sup> A work, of smaller dimensions than either the *Encyclopædia Britannica* or the *English Cyclopædia*, which deserves honourable mention, and promises to have a place of its own—not only because its smaller dimensions may adapt it to a wide class, but also on other grounds—is *Chambers's Encyclopædia*, now in course of publication by Messrs. Chambers of Edinburgh. Three volumes of this work, reaching from *A* to *ELE*, have appeared; which, so far as we have consulted them, seem peculiarly well edited—masses of various and far-sought information, admirably compressed.

venture to cite the "Penny Cyclopaedia" in the text of a book as his authority for a statement, or to let the words "Penny Cyc." figure among his footnotes? It would have been like walking down Regent Street at four o'clock, arm-in-arm with your uncle Hodge from the country, in his grey frieze, white bone buttons, and fluffy hat. And yet, as people do not hesitate to sponge secretly on honest and well-to-do men they would not be seen walking with, so there were large transactions in private by many a book-making magnate with the convenient bank of the "Penny Cyc." This is remedied now; and, in its new form of *The English Cyclopaedia*, a really great and trustworthy work of reference will have more justice done to it. In the new work there has been accurate revision of all the matter of the old—which matter consisted wholly of original articles expressly written for the work by a great number of the most competent men in the kingdom; and by this means, together with the addition of a large mass of new authorship on subjects that have turned up within the last twenty years, the work has been brought down, as closely as possible, to the present state of knowledge. Moreover, there is now a subdivision of the total work into four parts, any one of which may be purchased separately—Arts and Sciences, in eight volumes; Natural History, in four volumes; Biography, in six volumes; and Geography, in four volumes. On the whole, there is no use in making four bites of an Encyclopaedia, and the best policy will be to get the work entire.

Whoever does so will have a little library worth having. Where such an Encyclopaedia is at hand in a household, it will become daily habit to consult it. You are interested in what goes on in the world, and read your newspaper of a morning. Something fresh is always turning up there in the way of intelligence of war, enterprise, or political excitement, in some region or spot about which your ideas are rather dim—in Central America, on the Potomac, in

Queensland, in Morocco, on the Yangtse-Kiang, in Moscow, at Timbuctoo, at Pesth; and, if it did not cost you too much trouble, you would rather like to follow the Muse of History, with some clearness of vision, in these her capricious zigzags over the surface of the earth. Well, you set your boys and girls on the hunt through the Cyclopaedia of Geography; it is good amusement for them; and, when you come home in the evening, there you have the information all ready for you, at the cost of a penny to Curly-head, or a kiss to Golden-hair! And no trumpery information either, but the soundest geography that can be got from authorities like Wittich and Ritter! Or your boys and girls have been out walking in the fields, and have brought home ferns, and have no end of beetles and things to tell of that they saw under a bush; or they have been at the Zoological gardens, and are full of questions; or you yourself are disturbed in your mind, more than you would have your wife know for the world, about the Mosaic account of the Deluge, or about the action of your own heart, or about the exact amount of your anatomical identity with that accursed brute of a Gorilla, which has been walking at such a rate recently into our comfortable ways of thinking, raising a row in Edinburgh itself, and making even bishops shake in their shoes. Well, you have only to search a little in the Cyclopaedia of Natural History, or among the Arts and Sciences, and there, from such men as Lindley, or Lankester, or the late Mr. Broderip, or Professor Edward Forbes, you may get as much light as will answer your purpose. Or some eminent man, living or dead, is named about whom your curiosity is raised; or you have made a bet with some one whose chronology is as shaky as your own about the age of Lord Lyndhurst, or about the date of Wellington's first command in the Peninsular War, or about the number of children born to George the Third, or about the duration of Chatham's first ministry, or about the reign in which the poet Herrick died, or about the year when Hildebrand

became Pope, or St. Augustine arrived in Kent, or about some much older fact or other back to Solon ! Well, here is as extensive a Cyclopaedia of General Biography as there is in the language, among the contributors to which you are assured of such scholars and *literati* as Dr. Craik, Mr. G. H. Lewes, Sir G. C. Lewis, Dr. Schmitz, Dr. William Smith, Mr. Halliwell, Mr. Oxenford, and the late Dr. Donaldson. Pick out your volume ; turn to the article ; and have the grace, while you are about it, to read it through. Or, finally, you really want to study some matter of science in some treatise not too abstruse, and yet not consisting of mere popular slip-slop, but thorough so far as it goes ; or you desire to have a connected view of the course and contents of some particular national literature ! Well, here in the Cyclopaedia of Arts and Sciences is a collection of treatises to suit you—articles on all possible Mathematical and Astronomical subjects by such men as Airy, De Morgan, Cayley, and Grant ; articles in General Physics and Chemistry by these and such others as Stokes, the late Mr. Phillips, Dr. Franklin, &c. ; articles of all kinds by equally well-known men in Medicine, in Surgery, in Military Science, in Architecture and Engineering, in Manufactures and Machinery, and what not ; articles in Law and Jurisprudence ; and, in the department of Mental Science, Philology, and related subjects, articles on Logic, Language, Hieroglyphics, Cuneiform Writing, Sanskrit Language and Literature, the Vedas, Saxon Literature, the Welsh Language and Literature, or whatever else you wish, by writers like De Morgan again, Key, Birch, Norris, Gildmeister and Rost, Goldstucker, Guest, and Mr. Thomas Watts of the British Museum. The article on the Welsh Language and Literature by the last-named gentleman, as it is one of the longest in the Cyclopaedia, is one which for thoroughness of information on its subject it would be difficult to parallel anywhere ; and one's ejaculation, after reading it, is, "O that we had surveys like this of all the other out-of-

the-way literatures !" But Mr. Watts is believed to be perhaps the nearest approach to a living Encyclopaedia in himself that we have among us.

Errors, defects, and inequalities of execution might of course be pointed out even in this great work ; and different persons will come upon such in their different departments. We turned in vain ourselves for any such account of the Gaelic Language and Literature as Mr. Watts's of the Welsh. We have noted also various instances in which, in consequence perhaps of the subdivision of the entire Cyclopaedia into four parts, certain matters have been clipped of their due proportions, or have slipped out—just as four circles inscribed in one great one must leave part of the area uninclosed. Thus, though the histories of countries and nations are generally given in summaries in the Geographical section at the end of the articles, and though much that is left out there is to be gathered up from among the Biographical articles, or in the section of Arts and Sciences, we are not sure but a defect will occasionally be found in the absence of some consecutive narrative, such as would have been convenient, of the political history of some people, state, or race, viewed as a whole.

Not to be fairly charged against the work as an avoidable defect is the fact that sometimes a student whose line of inquiry is peculiar may look for a name in the Biographical section and not find it. All in all, as a compilation of Universal Biography, including not only the hosts of past celebrities of the earth who, in the ancient phrase for death, have gone over to the majority, but also the celebrities who are obstinate enough to remain in the bustling minority which the poor earth carries as its present freight, it would be difficult to match, either in Germany or in France, these six closely-printed volumes. They may certainly, for most purposes, supersede Chalmers, and Kippis, and our older English Dictionaries of Biography. Such a motley population of notabilities, dead and living, all assembled together, and

ticketed alphabetically, and patted on the back when they deserve it, is nowhere else, so far as we know, to be met with ; and to expect that no one soul should have been left out that any eccentric mortal might take a fancy to inquire about, would have been preposterous. A hundred volumes, a perfect Ersch and Gruber of a book, would have been necessary to satisfy such a preposterous desire for a Biographical Dictionary in which not one of Adam's children should have been omitted of whom anything is registered over and above the common legend that he ate, drank, slept, and had sons and daughters. Nevertheless, there are some unreasonable persons—and we confess to being one of them—who sigh after such an impossibility.

"Plague on't!" quoth Time to Thomas Hearne; "Whatever I forget, you learn."

A Biographical Dictionary in which no name shall be omitted is an achievement for which the world waits, and towards which it might be the best plan for all the other nations at once to set upon the Germans, conquer them, bind them hand and foot, and supply them with beer and tobacco till the work was finished. As it is, however, one has to regret a practice, entailed by commercial necessity on our existing biographical dictionaries, of dropping out men that it is supposed nobody will ever miss. Why, these are the very men that *are* missed ! The rule for Biographical Dictionaries should be identical with that for public as distinct from private libraries : whatever can be found nowhere else ought, for that very reason, to be found there. What care I for a biography, in a dictionary, of Addison, or Pope, or Bacon, or Newton, or any of these greater lights, British or foreign ? All right that such notices should be there in their places ; they may save me trouble, and I am much obliged to you ! But I could get that sort of information anywhere. What I want above all is,

that I should find as much, in brief compass, as is now recoverable about infinitely obscurer people—say about Timothy Tittlebat, who wrote a copy of verses on the occasion of the visit of the Shah of Persia's chief eunuch to Queen Elizabeth's private chaplain, and was supposed to know more about matters than he divulged, and to be in connexion afterwards with Ben Jonson ; or about Captain Runky Snuggles, who is known to have led a company of Roundheads at the siege of Drogheda, and to have been wounded there, but not killed, and who possibly went to America afterwards, where there are traces of an Anabaptist family, named Snuggles, who gave much trouble to Jonathan Edwards. You don't know the value of such facts to me ; you don't know their correspondences and affinities with my system of knowledge ; you don't know how these mere dead frogs hung on the iron railings of the past seem to twitch their limbs as I gaze, and what significance I find in their twitchings ! In the business of Universal Biographical Dictionaries I would make a law that, at the very least, no name that ever was in any dictionary should be omitted from any other following it. Are Biographical Dictionaries to be collections of waxwork, like Madame Tussaud's, where, as room has to be made for new celebrities, old ones that have had their day are melted down for their wax ? Until Germany is conquered and set to the task in the way proposed, a Universal Biographical Dictionary with absolutely no name omitted is not to be looked for ; but a universal *British* Biographical Dictionary, on some approach to the same principle, is, though a Herculean labour, not one utterly beyond the reach of resolution and capital. There is every reason to hope that the *Biographia Britannica*, advertised by Mr. Murray as soon to commence under the editorship of Dr. William Smith, will realize, as nearly as possible, this great design.

## A QUIET NOOK ; OR, VAGARIES OF AN OLD BACHELOR.

IN FOUR CHAPTERS.

BY JOHN RUFFINI, AUTHOR OF "LORENZO BENONI," "DOCTOR ANTONIO," ETC.

### CHAPTER III.

#### THE YOUNG LADY IN BLACK.

MISFORTUNE never comes alone. The next corollary of the morning's alarm was Louisa's departure. Her mother had been so panic-stricken at the sight of ill-fated Suldi that she had run to her room, locked herself in, packed her things, and would have started immediately, but for the fear of finding the dog in her way.

Hearing this on my return from the fatal expedition, I hastened to the lady in the full conviction that a faithful account of the tragic transaction I had just witnessed would be more than enough to dispel her fright, and decide her to stay. But in this I was mistaken. My *de visu* evidence, interpreted to her, and backed on my side by the most expressive pantomime at my command, failed to obtain credence, either from her, or, indeed, from the interpreters. Here was the fable of the boy and the wolf realized in full. Too polite to say that she disbelieved what I said, Louisa's mother alleged the painful impressions that were associated with the place, and rendered it disagreeable for her. And she stuck to her resolution of going, which she effected the next morning.

It was a day of mourning for the establishment. Louisa's departure was a public calamity, the more keenly felt, that the only alleviating circumstance of which the case admitted—namely, a little responsive feeling from the object of all this grief—failed us entirely. Louisa's frame of mind at leaving, I am sorry to say, was anything but complimentary to those she left behind. Not only was she not sorry, but joyful, and all impatience to be gone. The excite-

ment of the occasion, the prospect of a ride on the railway, had put a muffler on the little pet's sensibility. I see her still in her travelling cloak, and turned-up hat, a leather pouch slung across her shoulders, pattering about the breakfast-room with a busy and important look; I hear her still say, in answer to those who found fault with her for not shedding a single tear, that it was only naughty girls that cried—the reason accompanied by an adorable toss of the head, and demonstrative dropping of both arms, as much as to say, There's for you! It was only on the train, that carried her away, moving on, that Louisa realized the fact of being about to leave behind so many friends. (All the *personnel* of the establishment had accompanied her to the station.) Then she looked bewildered indeed, and her lips began to quiver. . . . Alas for the little sun of Schranksteinbad! I fear it had a rainy setting after all.

The void left by the general favourite was incredible. An old and infirm couple, whose delight she was, could not put up with it, and started on the next day but one. And so did the gentleman of the fried trout; though I must say I suspect that Louisa had less to do with his sudden resolve than the absence of wings from a certain dish of fowl, when the waiter handed it to him. The fact is that he stormed a great deal, rose at once, asked for his bill, and departed. Those who remained were uncomfortable; I, most of all, who for obvious reasons felt more than any one for the tragic end of Suldi, and for Ueli's consequent exit from the scene. Ten to one that, had I been entirely free, I should have cut short my stay in the country by a month or so, and returned to town; as it was, a thread as flimsy as a gossamer, interfered

with my free-will, and held me at Schranksteinbad.

What was it?—Neither more nor less than the hope of seeing the young lady in mourning again. Was I then smitten with her charms? Not a bit. Her charms were not of the smiting sort, as I told you already, nor is my heart of such friable stuff as to crumble to pieces on a first notice; witness the fact, that it remained whole and sound amid a host of fascinating young creatures, with whom I happened to breakfast, dine, sup, and spend most of each day. No; my interest in the young lady in black was all of a friendly, nay of a fatherly kind—it had its roots in the tale of sorrow which her sable garments implied, in her extreme timidity and consequent want of protection, in her look of sincerity and gentleness. I know very well that even out of such light materials time can forge a solid love-chain; but I was on my guard . . . lucky that I was so, or . . . but to the point.

That you may not take me for a still greater dreamer than I am, you must know that my hope of seeing the young lady again, though faint, was not entirely groundless. She had given me her address, if you remember, that I might let her know the amount of her debt to me—that is, the cost of the old lady's supposed lost ticket. Accordingly one of the first things I did on settling at Schranksteinbad, had been to set her heart at rest upon this matter, informing her in a few lines of the old lady's wicked trick about the ticket, and of the consequent issue of the affair without any cost whatever. She wrote back to thank me, adding that, if I was going to make any stay at Schranksteinbad, she was not without hope of reiterating her thanks personally, it not being impossible that, late in the season, she might come to Schranksteinbad with her aunt for a short stay. Here was the retaining gossamer.

Well, she proved better than her word. She came much earlier than the time she had named, and her first words on getting down from the omnibus, were to ask if I was still an inmate of the house.

Yes, from behind the blinds of my window, where I had been attracted by the sound of wheels, I heard my name pronounced by her sweet voice! Next to the call of the letter-carrier, the return of the omnibus from the station was the most exciting event of the day at our Spa. I hastened downstairs to offer my welcome. She was, and looked, very pleased to see me, and said how much she and her aunt, to whom she introduced me next, had feared disappointment in that respect. The aunt, with an awkward curtsey in answer to my bow, said something very commonplace about the obligations under which she and her niece, Maria, were to me. I confess in all humility that I had forgotten all about the aunt, and that I had taken her for her niece's servant. She had the *physique* and the garb befitting the part. Mdlle. Maria looked pale and thin. I asked whether she was unwell. There was nothing the matter, she said, only a little pain in the back. I advised her to see the doctor; upon which the aunt turned sharply round and said she would have no doctoring—it was time and money thrown away—air and rest, that was the best and cheapest physician.

I saw no more of aunt and niece till supper-time. They, as the last arrivals, sitting at the lowest end of the table, we had all its length between us; which put out of the question all attempt at conversation from them to me, or *vice versa*. Mdlle. Maria looked paler and thinner than ever by candle-light. I availed myself of the little confusion created by the end of the meal to approach her, and urge anew the expediency of having medical advice. She said she would when her aunt was gone, and begged me not to mention the subject again in her relative's presence—her aunt objected to . . . physicians. Was it to physicians or to fees that the lady objected? thought I; but I said nothing of the sort. Mdlle. Maria's manner was hurried and nervous in the extreme during this short colloquy; her eye was all the while on her aunt, who was talking to an elderly lady, both of whom presently joined us. I led them

to the balcony, where most of the company was congregated—the moon shone beautifully—and introduced my new acquaintances to all the persons present.

The aunt left on the morrow after breakfast, recommending her niece to all in general, and to me in particular. She had a concern of some kind, somewhere, which could not dispense with her presence. Nobody, as far as I could see, regretted that it was so—I, least of all; though, as I learned soon after from Jungfrau Madeleine, whom the report had reached in her kitchen, she had lost no opportunity of descanting upon the great service I had rendered her niece.

Mdlle. Maria drove to the station with her aunt, and by the same occasion called on the doctor at the next village. The doctor treated her ailment very lightly, and prescribed for her cold *douches* and repose. This *fiat* of the doctor, communicated to me by Mdlle. Maria, only half re-assured me. Considerate doctors—and the one in question was very much so—do not begin, of course, by frightening their patients out of their wits, in order to effect their cure. So I resolved to question the doctor myself. Nothing more easy; he called daily at the baths, and we were on excellent terms with each other. I lay in wait for him the next day, went a little way back with him, and adroitly put him on the topic about which I wanted enlightenment. His answer, I am glad to say, was but a confirmation of his statement to Mdlle. Maria. Her complaint was the result of a strain made in lifting a basket full of linen; she had injured her spine; the hurt was happily light this time, and would entail no bad consequences upon her; but, if they continued to overwork her as they did, sooner or later their wash-days would make an end of her!

"It is the pride of our housewives," continued the doctor, "to fill their presses with heaps upon heaps of linen, and to have in the year but two washes—monstrous ones, of course, and enough to try the strength of an ox. Now, Mdlle. Maria is delicate, very delicate; I have told them so more than once, but

what is the use? So long as they can squeeze out of her all the work that is in her, what do they care whether she lives or dies, the miserly brutes!"

The honest indignation of the feeling practitioner did one's heart good to see. The miserly brutes were, of course, Mdlle. Maria's aunt that I had seen, and this lady's worthy husband, the only near relations of Mdlle. Maria, and with whom she had gone to stay, ever since her father's demise, eleven months ago. The new light of victim, under which the doctor's confidences placed my young acquaintance, was not calculated, as you may well think, to lessen my interest in her.

She did not look like a victim, though. As her extreme timidity gave gradually way under the warmth of the general kindness (and who could feel otherwise than kind to the sweet-faced, sweet-mannered invalid?) there spread over her countenance a calm serenity, which excluded all notion of her feeling at all unhappy. Then the evident pleasure she took in constant occupation was to me another proof of her evenness of spirits. Mdlle. Maria was always quietly busy, either knitting—that inexorable necessity of all Swiss women—embroidering, sketching, or reading. When it was too hot to sit in the open air of an afternoon, she would quietly steal to the dancing-room, and there play on the piano for hours, or sing (little of this last, however, for the doctor was rather against it). She had plenty of time for all these avocations, poor thing, being under *veò* of taking walks of any length. To those who congratulated her upon the variety of her accomplishments, she simply would observe, that she was brought up for a governess, and had had to learn many things, without really mastering any one; a statement more modest than true, because both for music and sketching she had a very fine talent. She could also read and speak English correctly enough, but not write it.

I used to go every morning, after post-time, and read my newspaper in one of the two summerhouses, which

stood on a little elevation at ten minutes' walk from the house. It commanded a beautiful view of the valley, with its winding river, the woody hills which hemmed it in, and the chain of the Alps behind. Well, one morning (it was the fifth since Mdlle. Maria's arrival), as I reached the spot, whom should I see but Mdlle. Maria installed in one of the summerhouses, and reading a letter! I was the more surprised to meet her there, that I had heard her repeatedly complain of the doctor's cruelty in tabooing the place for her, because of the little ascent. However, it was too late to withdraw, for the young lady had seen me; accordingly I went up to her, and said jestingly, that I was afraid I was in duty bound to report to the doctor. She said she felt so much better this morning that indeed she could not withstand the temptation. The shower-baths were doing her a world of good.

"I am heartily glad of that," said I; "and I will reconsider my threat of turning informer. In the meantime I will leave you to the perusal of your letter."

"I have read it twice over already," said she naively. "Your name figures in it."

"Does it, indeed?"

"Yes, here it is;" and she pointed it out to me. I read, in fact, my name, at the end of a flattering phrase, expressive of a wish to make my acquaintance.

"You are not curious," resumed she after a pause, seeing that I asked no questions.

"I am only discreet," said I.

"I am sorry you are, because I want to prejudice you in favour of the writer. He comes to-morrow." (To-morrow was Sunday.)

"Who comes?" asked I.

"Adolphe."

"Is he a relation?"

"No... no relation."

"Something better, then?"

She blushed... "perhaps;" and Mdlle. Maria's little romance before long oozed out in driplets.

It was like most romances of most girls. She had known him from a child.

He was the cleverest and best pupil of her father, who kept a school in a village, and the gentlest and kindest of playfellows to her. When he left for town, at seventeen years of age, to enter as clerk in a commercial house, an attachment had already sprung up between them, known to and approved of by her father, who, however, put off all question of marriage to the time when Adolphe should earn money enough for himself and a wife to live decently. She was then scarcely fifteen, and studying to fit herself for a governess. The next three years proved the happiest of her life. Adolphe visited at her father's as often as business would allow; he advanced steadily in his profession, and her father was quite satisfied with him. At the end of the third year, the sky clouded at once. Evil reports—false, of course—of the youth's behaviour reached her father, who, unfortunately, believed them. This led to a succession of stormy scenes, the upshot of which was a rupture. During the long estrangement that followed, lasting nearly two other years, Adolphe had risen to the situation of head clerk in the business, and had plenty of advantageous offers of marriage, which of course he declined for her sake. Then her father had a stroke, and was not expected to revive; he did however, and lingered on for months and months. And for months and months was Adolphe unremitting in his cares and attentions to the invalid—a son could have done no more. In short, the dying man's heart relented, and the grant of his daughter's hand was the seal of the reconciliation. He died shortly after. Adolphe and Maria were to be husband and wife at the expiration of her mourning.

This communication eased my mind wonderfully. That, after what I had heard of the selfishness and unconsciousness of the relations on whom she depended, there should be an honest fellow ready to rescue her from thraldom, seemed nearly too good to be believed; and my sympathies, from this moment, were enlisted in favour of M. Adolphe. A love so constant, against

wind and tide, spoke well for the man. I waited for his appearance with almost as much impatience as Mdlle. Maria.

The most impatient of the three, however, proved M. Adolphe, who burst like a bomb upon us on the evening of the same day, Saturday, just as we had done supper, and were cooling ourselves on the gallery. He had taken time by the forelock, he explained, and here he was. Judge of Mdlle. Maria's delighted surprise and beaming looks. I, for my part, was scarcely less pleased; I could have hugged him for his hurry. A lively blondin, with blue lustrous eyes, looking hardly his age, twenty-four, restless as a gutta-percha ball, full to the brim of talk, of fun, and exuberant spirits! He made himself quite at home, and was on terms of intimacy with everybody in no time. To me he was over-friendly. He shook me repeatedly by the hand, with a vigour that threatened my wrist with dislocation; and the warmth of his thanks was so disproportionate to the small service I had rendered Mdlle. Maria as to positively put me out of countenance. My horoscope of him was, altogether, very favourable. A warm-hearted creature who will make his partner an easy life, thought I; rather too boisterous and demonstrative for my taste—but what has my taste to do in the matter? She it is who marries him, and she likes him as he is. All right.

M. Adolphe was already discussing his toast and coffee, when I entered the breakfast-room next morning. I went up to him with outstretched hands, and—lo! what could be the matter with him? The night had aged him by ten years! All the spirit and animation had gone out of his face and manner. He gave me the tips of his fingers, and stammered some broken words of greeting. He scarcely spoke during the meal, and always with some effort. Do what I would, I could not bring him to look me straight in the face. His eyes wandered restlessly right and left. A culprit who shuns observation—such was the appearance he presented.

I seized a favourable opportunity to

ask of Mdlle. Maria, unheard by him, whether they had quarrelled. "Not in the least," said she; "what makes you ask?"

"Why, because M. Adolphe looks rather... thoughtful."

"He always does in the morning," said she; "business weighs him down; only think, such a responsibility; all the concern on his hands, and he is so conscientious!"

I accepted this explanation for what it was worth. Queer sense of responsibility that must be which makes itself felt exclusively in the morning! Perhaps he was only out of sorts, or ill. But he was always so, she had said. I was more puzzled and vexed by this new aspect of affairs than I dare say. Was this vessel I thought so sound a damaged one, or was it only a false alarm? I determined to watch M. Adolphe pretty closely. I saw him go to church alone—so long a walk was out of the question for Mdlle. Maria—and return in her company; she had gone to meet him a little way. He went in for no longer than five minutes, and then came down and sat in the shade with the company. His looks were improved, and so was his manner; it had nothing in it of the buoyancy of the previous evening, but the late constraint had passed away from it; it was natural. He could now talk to people, and look them full in the face.

The dinner did not work any appreciable change in him, that I could see. We sat long after dinner to watch the Sunday people coming—he seemed to take very little interest in the sight, and spoke little. At one time I heard him ask Mdlle. Maria if she had not better go and have a little rest. Had she complained or not of being tired? That is more than I can say. She complied, and he accompanied her into the house. From that moment I lost sight of him for some hours. The affluence of the Sunday visitors made it a very hard task to follow the doings of an individual among the crowd.

When I saw him next, he was sitting at a table in the gallery with sun-

dry acquaintances he had met, Mdlle. Maria by his side. I noticed immediately a very sensible rise in his spirits. He was growing talkative and expansive. He would have me sit by him, drank my health, and pelted me with protestations of friendship. My eyes were riveted all the while upon Mdlle. Maria, to spy the faintest indication of uneasiness in her face. None—there was nothing in her looks but pride, admiration, happiness. Need I say that by supper-time M. Adolphe had found again his youthful appearance, his brilliancy, his gift of the gab, his buoyancy of the previous evening? After supper we adjourned, as usual with us, to the dancing-room; the throng had cleared considerably by this time. Now it was that M. Adolphe shone in all his lustre, and won the heart of our ladies, whom he took almost all for partners, one after the other. Mdlle. Maria was forbidden to dance. M. Adolphe was a fine dancer, light and indefatigable withal; his occasional imitation of the ways of the peasants, including the great thump and the yell, were the *ne plus ultra* of comicality. How she laughed! I might have quarrelled with her for looking so pleased. How stupid women can be when they choose!

To me this merry exhibition proved anything but agreeable. There was no mistaking the source at which M. Adolphe drew his inspirations. What in the previous evening I had taken for granted to be, and might, strictly speaking, have been, exuberance of animal spirits, was simply the effect of drink. Was it an habitual or an occasional indulgence with him? That was the question on which Mdlle. Maria's future happiness hung, and the only desideratum by which it might be solved—time—failed me. M. Adolphe would be gone in the morning.

I could scarcely sleep for the harrowing thought that haunted me, and set out by break of day for a long expedition up the mountain. Locomotion and fresh air are my infallible medicine for the ailments of the mind, and did not fail me on this occasion. After a full

two hours' ramble, I made up my mind to submit my observations to the doctor, and take counsel from his tried experience. I was, accordingly, wending my way towards home to have a hasty breakfast, and then proceed immediately to the village, when lo! at the turning of a path I overtook the doctor himself. He was returning from a hamlet up the mountain, to which he had been summoned in all haste during the night.

"I was just thinking of going to you," said I; and then and there I told him of my perplexity, and gave him an account of M. Adolphe's doings during the last twenty-four hours, with the accuracy and minuteness of a medical student reporting the symptoms of a patient confided to his care by his professor. The doctor pronounced at once the case one of confirmed drunkenness. What characterized it as such, he said, was the dejectedness of the young man in the morning; it was an infallible symptom, as he had been able to ascertain, from alas! too frequent an experience. Habitual drunkards, previous to raising themselves up by a dose of stimulant, felt, and looked in fact, like culprits—to borrow, as he said, my graphic and felicitous simile.

The doctor's opinion coincided too well with my personal impression not to carry a decisive weight with it; yet it seemed hard—and I told him so—to convict a man, as it were, on one day's evidence, and act against him upon it.

"What do you mean by acting?" asked the doctor.

"Why," said I, "the young lady ought to be warned."

He laughed a dry laugh, and said, "I have warned against drunkards girls by the score, with no better result than losing them as patients. None so deaf, you know, as those who won't hear."

"I have not arrived at my time of life, dear doctor, without knowing what one ordinarily gets for one's pains in such occurrences, but there may be exceptions; and then, it is an affair of conscience. If I only could get some additional evidence!"

"Is there no chance," asked the doctor,

"of having this young man down at the baths for a few days?"

I said I feared there was none; business nailed him to town; he could only leave on Saturday evenings.

The doctor considered a moment; then said, "You shall have your bit of additional evidence, though. Here is how it shall be. Mdlle. Maria has begged me repeatedly for leave to go to the Rothen Flüe. Rothen Flüe is a high point on the mountain, easy accessible to carriages, and from whence there is a beautiful view. I shall grant her leave for Sunday next—she is well enough now to stand the exertion—but on condition that I shall be of the party, to make sure of her committing no imprudences. At the same time I shall mention you as willing to make the excursion; that will lead to your being invited. The trip will take us six hours at least. We'll see how M. Adolphe stands the trial."

The scheme succeeded beyond our wishes; I say beyond, because it had a tail, with which we could have well dispensed. However, of this in its place. Well, then, Mdlle. Maria brought me word in due time, that the doctor had at last consented to her going to the Rothen Flüe next Sunday; that he was to be of the party, and I too. M. Adolphe, on his side, when told of the arrangement on the following Saturday, expressed his delight with all the flow of words and spirits incident to the hour—nine o'clock in the evening. But at five in the morning it was quite another story. We had the greatest difficulty in wrenching him from his slumbers; and, when at last he made his appearance, rather than the looks of a young lover bent on a beautiful excursion with his betrothed, his were those of a criminal called up for execution. I may say, without exaggeration, that he sustained the character throughout the expedition.

Not that he did not strive hard to shake himself up, and look alive; but he lacked the stamina for it; he had not a breath of life in him. Even blind Mdlle. Maria noticed, and asked the

reason of, his state of collapse and intense look of *ennui*. He pleaded bad headache; the sun was so hot, he said. We did our best, the doctor and I, to entertain and interest her, but in vain; where the finest view imaginable failed, what could our efforts do? The mention of the bad headache had taken all the sun out of her eyes. He scarcely tasted the provisions we had taken with us, and even refused the glass of wine, his allotted part of the one small bottle in our possession. Our stay at the Rothen Flüe was of the shortest; our drive home dull and silent. We reached Schrankensteinbad at eleven, a full hour before our time. M. Adolphe said he would go and lie down till dinner, when he hoped—nay, made sure of being quite himself again.

The dinner bell rang at twelve as usual, and . . . here comes the tail. M. Adolphe had so well employed the interval, that to see him, and say, *und voe*, "He is tipsy," was, for the doctor and me, one and the same thing. We learned afterwards from Jungfrau Madeline that he had asked for and taken up to his room a bottle of kirschwasser, under pretence of washing his head with it. His bloodshot eyes, tottering gait, and incipient thickness of utterance intimated too clearly that eagerness to make up for the long deprivation of stimulant had betrayed him into taking an overdose.

M. Adolphe began by declaring that he would not sit down at the low end of the table, so far from his dear friends—the doctor, my guest for the day, shared with me the presidential place—and actually carried his and Mdlle. Maria's cover close to where we sat, to the no small inconvenience of the whole company, who had to move down to make room for them. He next called for champagne; and, on the waiter asking how many champagne glasses he ought to bring, he answered as many as there were people at table. Then he began giving toasts and drinking them conscientiously, rattling on all the while, and getting up at every moment to go and hobnob with this and that guest, who

happened to be out of arm's length. Then . . . but what is the use of dwelling on a scene as disgusting as it is unfortunately familiar? Who has not seen a man half-drunk bent on making himself completely so, with a zeal worthy of a better cause? All that I could do, and that I did, in my capacity of chairman, was to shorten the meal as much as could be decently done. The doctor and I, seemingly in jest, dragged reluctant M. Adolphe into the open air, and had him seated on a chair, from which, before long, he slipped to the ground in a state of coma, as the doctor scientifically termed it. So we had him carried to his room, and consigned to his bed.

How was Mdlle. Maria affected by this disgraceful episode? Well, believe it or not, Mdlle. Maria enjoyed the sport indoors very keenly; I daresay, in the poor young lady's eyes, M. Adolphe had no equal for wit, fun, and jollity. The catastrophe that followed in the open air, took her quite by surprise. She looked alarmed and distressed, and kept repeating that surely it was the sun. The kind-hearted people around, to tranquillize her, agreed that it was the sun. I myself, when she appealed to me, laid it all at the door of the sun. Incredible the number of barefaced lies we tell with a good intention!

Nobody, but Mdlle. Maria, who had probably little sleep, if any, that night, saw M. Adolphe next day. He

was already gone when I went out for my early morning walk. I let two days slip by; and then, availing myself of a moment of privacy, I threw out to her a dubitative hint or two. I did so with all the care and delicacy of touch of a mother dressing the bleeding wound of a dear babe. She stood up in arms, repelled the charge with scorn, flatly denied all the circumstances with which I supported it, made even a weapon of my admission that it was the sun—in a word, was as absurd as women always are in like circumstances. A similar attempt, made at my earnest instigation by the doctor, had a similar result. She sent instantly word to her aunt to come and take her away, and departed in high dudgeon. I wrote a long letter to her: the letter was returned to me, opened, but without a word.

I never saw her again—she sent me in after years many kind, nay repentant messages—but I saw enough of the unhappy wretch, whom she had made the partner of her life, to acquire the certainty that my worst anticipations were realised. The last I knew of the husband of the young lady in black was that he had been dismissed his situation, and was busy drinking his wife's little portion; a case so common under all latitudes—perhaps more especially common in the more northern ones—that it scarcely elicits any notice.

*To be continued.*

## THE HISTORY OF LIGHTHOUSE ILLUMINATION.

BY J. H. GLADSTONE, F.R.S.

BEACON lights for the benefit of mariners are no modern invention. Old Homer draws a simile from them:—

"So to night-wandering sailors, pale with fears,  
Wide o'er the watery waste a light appears,  
Which, on the far-seen mountain blazing  
high,  
Streams from some lonely watch-tower to  
the sky."<sup>1</sup>

<sup>1</sup> So Pope renders the passage in Iliad, xix. 375.

The far-famed Pharos of Alexandria was built at great expense, in the reign of Ptolemy Philadelphus, about three hundred years before our era, and Strabo mentions a magnificent stone lighthouse on a rock near the mouth of the Guadalquivir; so that the lines of the Poet Laureate, in which the little maid talks to Guinevere of the prodigies at the founding of the Round Table, might even be true to nature—

"All down the lonely coast of Lyonsse,  
Each with a beacon star upon his head,  
And with a wild sea-light about his feet,  
He saw them, headland after headland,  
flame  
Far on into the rich heart of the West."

Yet we have no knowledge of the method of illumination adopted by the ancients, and the whole of the present history will be confined almost within the narrow limits of a century. The materials of the sketch will be drawn from Alan Stevenson's Treatise on Lighthouses, and from various sources of information which were open to the writer when serving as a member of the Royal Commission on Lights, Buoys, and Beacons, under the presidency of Admiral Hamilton, whose report was laid before parliament last spring.

Many lighthouses, still standing, have witnessed the whole of the important changes that have taken place in the art of illumination. Thus the beautiful Tour de Corduan, at the mouth of the Gironde, first exhibited a light obtained by burning billets of oak in a chauffer; then coal was substituted for wood; afterwards a large tinned reflector was placed above this fire to throw down the light which had previously been wasted on the sky. Next oil lamps and paraboloidal reflectors were employed; and, lastly, the tower was crowned with the first apparatus of lenses that ever gave to the mariner the light of a four-wick'd lamp.

It must not be supposed that these various changes of system took place simultaneously in different countries, or even in different parts of our own country. The fact is, that the lighting of the shores of the British Isles has been undertaken by a large number of different corporations, and, till recently, by some private individuals; and some of these have been naturally more conservative than others—the large bodies generally, but not always, taking the lead in improvements. These bodies are the Trinity House in England, the Commissioners for Northern Lights in Scotland, and the Ballast Board in Ireland, which have under their juris-

diction nearly all the great shore lights in the respective countries. The two last are subject, in some particulars, to the first; the three have a limited power over the harbour lights, which belong to perhaps a hundred municipal authorities; while the Board of Trade has a not well defined "control of the purse" over them all. Should the recommendations of the Royal Commission be adopted, the system of government will be greatly simplified; yet, even then, we can hardly expect that new improvements will be extended at once throughout the whole lighthouse service of the country—for new apparatus is costly, and indeed different plans of illumination suit different localities. But in a historical paper we have only to deal with things as they were and are.

There is a peculiarity about the history of lighthouse illumination which may perhaps be best illustrated by comparing it with the geological history of our earth. In that we are accustomed to recognise various epochs—one age of luxuriant vegetation, another of huge saurians, another of mammalia. Yet we know that these ages are not separated by sharp lines of demarcation; we cannot say when in the progress of time the little rodent first made its appearance; and, though the trilobite and the pterodactyle have long been displaced, the pentacrinites and the iguana still survive in limited regions, the relics of a former age. Just in a similar manner we can point to certain epochs in lighthouse illumination. It is difficult to define their commencement; the day of their glory is clear enough, their decadence is slow; and, though the coal-fire has become extinct, specimens of antiquated lamps and primeval reflectors are still to be found in remote localities.

I proceed to give an account of these various epochs.

*Coal-fires.* The earliest records are of open coal-fires which were kept burning on the top of beacon towers throughout the darkness of night. Of course these had many disadvantages; not the least

of which was that, if the wind were blowing hard from the sea, it blew the flames to the landward side of the fire, and little light was displayed to the mariner when seeking to avoid a lee shore, in the hour of his greatest need.

At the lighthouse on the Isle of May a coal-fire was burnt from 1635 to 1816. Two years ago I conversed with a keeper at Harwich, who remembered the coal-fire there, and the blowing of the bellows, and the constant attendance without shelter from the weather. The last fire of this description in England was extinguished at St. Bees, in 1822.

One evil connected with this system has been entailed on us. For the sake of distinguishing one beacon from another, it was found necessary in some cases to build two towers with coal-fires near together, and even three towers—at any rate in France. And this means of distinction is actually still retained in some places, where not wanted as a leading light, although it doubles the expense.

*Candles.* Candles appear to have been seldom employed as a source of light in beacons; but in the Eddystone lighthouse, on the construction of which so much ingenuity and labour were expended, twenty-four wax candles gave their feeble glimmer as late as 1811.

*Oil.* The use of oil as a combustible can be traced as far back as 1730; but it was very gradually that the oil lamp displaced the coal-fire. Sperm oil was generally employed. The French, however, used Colza oil, and this was found to be more economical, and not liable to be frozen in cold weather; and, after a strong recommendation by a parliamentary committee that sat in 1845, it was at once introduced into the lighthouses under the management of the Trinity Board, and more slowly into those of Scotland. The Board of Admiralty still prefers the expensive and troublesome sperm oil for the lights under its jurisdiction; while the merchants of Liverpool have a peculiar preference for olive oil.

Oil implies a lamp. Many have been the modifications which lighthouse

lamps have undergone. In the museum attached to the lighthouse establishment at Paris, there is a curious row of contrivances, from the tin lamp with a spout and a skein of cotton in it, like the old Roman form, to double wicks, and flat wicks, and argand burners, and lastly, the grand four-wicked lamp invented by Fresnel and Arago. Some of these discarded forms still linger in lights under local management. For instance, on the pier at Douglas, in the Isle of Man, "the lamp used is exactly the same as the common lamp hung in the poorest fisherman's cottage, and as old as the Italian tombs."

*Oil-lamps with mirrors.* It requires no profound knowledge to see that whatever light is allowed to stream from a lamp over the land, or up to the sky, is so much light wasted, and that, if it were thrown back across the surface of the sea, it would be so much gained to the mariner. The use of mirrors for this purpose early suggested itself; and it seems likely that the lights erected in 1763, at Bidstone and Hoylake near Liverpool, were furnished even then with the large reflectors which they certainly possessed not long afterwards. It was about 1783 that paraboloidal mirrors on a revolving frame were erected on the Tour de Corduan; and the example was almost immediately and extensively followed in the United Kingdom.

But the mirror has seen many changes, and has grown in cost and efficiency, if not in size. The most primitive form that showed any scientific sense was the hollow paraboloidal mould, lined with narrow strips of flat quicksilvered glass; and such reflectors are actually still in use at the pier lights at Newhaven, where an antiquated tin box serves as the lamp, and the oil—sperm oil—rises by three primitive wicks, and, for want of proper burner and chimney-glass, fills the chamber with smoke. This form was succeeded by parabolic reflectors of silvered copper, in the centres of which were argand burners, so placed that the rays which struck upon them were sent forward in straight lines towards the sea

horizon. Of course these lamps and reflectors could be multiplied on the same framework to any extent required, and the capital invention of revolving lights was then made. As each lamp sends a direct ray to a ship at sea, decreasing in intensity as the square of the distance, and, at the same time, sends a strong beam of reflected light to some portion of the horizon, it is evident that, by rotating the mirror, or the whole apparatus, this beam of light may be made to sweep round, and illuminate every portion of the horizon successively. By multiplying such mirrors, a number of beams of light may be made to sweep over the sea, like the spokes of a mighty wheel of fire. By varying the number or the velocity, different periods may be imparted to the flash. The effect of this is that a revolving light so constructed appears, from the deck of a ship at no great distance, as a permanent faint light, varied at regular intervals by a much more brilliant blaze; as the vessel goes farther away, the waxing and waning of the light is very perceptible, and at length only the bright flashes are seen. The advantages of these revolving lights are manifold. They send a ray farther than could be effected otherwise with the combustion of the same amount of oil; they catch the eye of the mariner; and they afford an easy method of distinguishing lighthouses from one another, or from common shore or ship lights.

Argand fifty years ago suggested a combination of the parabola and ellipse, and Handry a combination of the cone and parabola, as preferable for these mirrors; but the theoretical advantages of these forms do not appear to have been put to the test of actual use. Bordier Marcier invented some ingenious modifications of the parabolic mirror, which were adopted for the harbour lights of France; but they have been since discontinued, and the only place in the British Isles where I have found such an apparatus in use is Little-hampton.

The simple parabolic silvered reflector still holds its ground in the United

Kingdom. There was a time when it reigned supreme, and when England stood pre-eminent among the nations for the efficiency of the beacon-lights along her coast. Even now the silvered reflector is almost universal in the floating lights, and, though it has been driven out of half our principal lighthouses by another instrument, it is still retained in many of the best; and the multitudinous evidence recently collected places it beyond a doubt that many of our grand revolving reflector lights compare favourably with the best lights of foreign countries. Such a light is that at Beachy Head, where thirty burners, consuming 1000 gallons of oil annually, are arranged on a triangular stage, in such a way that ten reflectors at once direct a beam of ten-fold brilliancy to the same part of the ocean.

*Oil lamps with lenses.*—While a mirror gathers up and renders serviceable the light that radiates behind a lamp, it allows the front rays to travel at their will to the sky, or the sands at the base of the cliff, so that few reach the mariner. The idea occurred, that this might be obviated by placing a lens in front of the light; but a trial made last century, in a lighthouse at the south of England, proved a failure—partly, no doubt, on account of the thickness and badness of the glass, and also because it destroyed the efficiency of the parabolic mirror. Buffon and Condorcet showed how to make gigantic lenses without any great thickness of material, by dispensing with everything beyond what was necessary to give the right refracting surfaces. Then arose the greatest genius of lighthouse illumination, Auguste Fresnel. The French government, in 1819, finding their lighthouse system extremely imperfect, commissioned Fresnel to go to work on the subject. The idea of using lenses took firm possession of his mind; he experimented carefully and well, and in 1822 brought forward his proposition for surrounding the flame of a gigantic lamp by lenses made in many rings of crown-glass, subtending an angle of forty-five degrees. By this means he gathered about one third of

the whole light into a few sheafs of rays, which could be easily made to revolve, while the light which radiated above these lenses, was sent along the surface of the sea by a combination of lenses and mirrors. This apparatus was proposed by its inventor for the Tour de Corduan ; an experiment was made with it, on the 20th August, 1822, before the Commission des Phares; it was considered successful, and the plan was adopted. But the French government did not stop here. A comprehensive scheme was proposed for improving the lighthouse system of the country, building new lighthouses, altering old ones, introducing the lenticular apparatus, and varying the appearance of the lights. And badly enough was such a general scheme wanted. The French coasts were then wretchedly lighted ; for instance, there appears to have been only one French light in the Mediterranean. Sixteen others were proposed. The French side of the Channel was better supplied ; yet even there great changes were loudly called for. The matter was entrusted to M. de Rossel, whose general scheme was approved by the Commission des Phares, May 20, 1825, and referred to him and Fresnel for further development ; which was given to it in a report dated September 9th of the same year. This comprehensive plan was speedily carried into effect, and the lighting of the coasts of France became almost as good as it is at the present day.

The merits of the lenticular arrangement did not long remain unappreciated by other countries. The Dutch have the credit of first following the good example. The Scotch Board soon sent their engineer to study the new system ; but, though constantly urged on by Sir David Brewster, who had long previously experimented on lenses, it was only on October 1st, 1835, that the first lens-light was exhibited in Great Britain, at Inchkeith, in the Firth of Forth. This was quickly followed by a change in several other Scotch lights, and by the Trinity House, in 1836, furnishing a newly erected lighthouse,

on the Start Point, with one of these lenticular arrangements. Since that time, this apparatus, variously modified, has been gradually replacing the silvered reflectors in our British lighthouses ; but only gradually—for the Board of Trade lay it down as a principle, that the expense involved by the change should only be incurred when the reflectors are worn out, and they will often last, when handled by careful keepers, for forty years. The governments of the United States and Spain have, within these last few years, instituted a complete reformation in the lighthouse service of those countries, and have adopted the lenticular system throughout.

The lenses first used in England were manufactured, we believe, at Newcastle ; but they were poor affairs, and subsequently the contracts were given to French houses. But English manufacturing ingenuity was not to be baffled ; and now the Messrs. Chance, of Birmingham, make apparatus equal, if not superior, to all others. A visit to their works is most interesting ; and it would be instructive to describe the mysteries of the melting-pot, and the advantages of cross-stroke grinding ; but space does not permit, and perhaps the reader is thankful that it does not.

Attempts have lately been made to employ pressed instead of ground glass. The chief advantage is economy ; but it is an economy we do not care to practise even in our household glass, much less in optical instruments. There is a little pile lighthouse near Calais, standing in the water on its long iron legs, which is fitted up on this plan ; but, though immense ingenuity has been expended on it, the experiment cannot be deemed satisfactory. It was at Londonderry that a lens of pressed glass first came under my notice, but the man in charge did not know which way to place the convex side ; and in a tower on Lough Foyle a similar lens was actually turned the wrong way.

In the centre of this system of lenses should be the most powerful flame that can be produced. Four concentric wicks, each capable of moving independently

of the other, with a mechanical arrangement for pumping up the oil, were employed by Fresnel; and the regulation quantity of colza oil annually consumed is 785 gallons for each first-order lamp in France. Now it must be remembered, that the amount of oil burnt is pretty nearly a measure of the light produced; and, as all other expenses in a lighthouse remain the same whether the flame be great or small, it is evidently the worst economy to stint the oil. Yet this has actually been done systematically in England and Ireland, where, partly from inferiority of lamps, partly from the rejection of the fourth wick, and partly from not encouraging the keepers to burn a high flame, the quantity of oil consumed is not much more than half what it ought to be—averaging, respectively, 474 and 442 gallons in 1857. And this error tells more fatally, since it is only the light from perhaps two inches or more above the burner that ever finds its way to the sea through the lenses—so that, as the Royal Commissioners actually found in their visits, when low flames were employed, little beyond the yellow points of the flame were serviceable to the mariner.

*Oil lamp with both lenses and reflectors.* Even in Fresnel's original design it was proposed to catch and to utilize the light which passed above the lenses by reflectors of looking glass; and several existing lighthouses contain apparatus on this principle. But the combination of the two systems has drawn forth the ingenuity and talent of the family of the Stevensons. The two systems are called, respectively, the catoptric and the dioptric, from the common optical terms; but in this paper these terms have been hitherto avoided, and it is not my intention to trouble the reader with the distinction between catadioptric and diacatadioptric, or to describe in detail an “azimuthal condensing catadioptric holophotal apparatus.” It would not indeed be possible to do so without diagrams. The three following points may suffice to show the important modifications which Mr. Thomas Stevenson has made of Fresnel's idea.

The rays passing above or below the band of lenses are caught and sent into the desired direction, not by mirrors, but by totally refracting prisms of glass. The first apparatus of this character erected was at the Pedra Branca rock, near Singapore, in 1850; but the principle has been extensively adopted since. A fixed apparatus of this character is like a gigantic bee-hive, the encircling bands of which are made of glass; and, if for a first-class light, it is capacious enough for several persons to get inside it at once, and walk round the central fire, and view the image of the landscape in each separate piece of glass.

If it is desired not to illuminate the whole circle, and to send a particularly bright beam in one or two directions, as frequently happens in the narrow channels among the Western Isles of Scotland, the rays passing towards the undesired quarter are caught by lenses and a row of vertical prisms, and sent exactly to the spot where their brilliancy does good service to the sailor, winding his way through those tortuous seas.

An effective combination of the metallic reflector and the lens is in some places adopted, where the rays in front are parallized by the transparent glass, and the rest by the parabolic metal, with the exception of those at the back of the flame, which are returned through it by a spherical mirror, and sent through the lens.

It is self-evident that the proper adjustment of these different pieces of apparatus is a matter of the utmost importance; for it might easily happen that they should send the light up to the stars, or down to the shore. The Royal Commissioners suspected that in many cases it was so; and the bright idea occurred to their Secretary, Mr. J. F. Campbell, that it would be easy to determine where the light of the lamp fell on external objects, through a particular piece of glass, by observing what external object was visible through that piece to an eye placed where the flame should be. By this method of internal observation the sadly defective state of many of our lighthouses

was proved to demonstration. The Astronomer Royal took a strong view of the case, saying of one instance: "It really gave me a feeling of melancholy "to see the results of such exquisite "workmanship entirely *annihilated* by "subsequent faults in the mounting and "adjustment." The attention of the Trinity Brethren was called to this defect; and, by the zealous co-operation of Professor Faraday and Mr. James Chance, means were devised for readjusting the bands of glass, or for fixing them properly in the first instance. During this investigation several curious facts were noticed. Thus sailors at Whitby had complained that the lighthouse gallery cut off the lower beams of light; it was not the gallery, but the very prisms of glass which ought to have gathered up that light for the benefit of the sailor. The revolving light at Cape Gris Nez has been praised both in parliament and out of it, and has drawn upon itself the special admiration, not only of those landsmen who may run across by night from Folkestone to Boulogne, but also of the seamen who frequent the whole of the British and French waters. Yet the French authorities thought rather meanly of the light at Gris Nez:—it was an old-fashioned thing, one of the first dioptrics put up, without any of the modern improvements. The commission visited Gris Nez; and, true enough the apparatus was old fashioned. But it was accurately adjusted—probably by Fresnel himself; at any rate by some one who was not content with ordering a beautiful, complicated, and costly piece of mechanism, and getting a mason to set it on top of a tower.

It is not in the above respects alone that great ingenuity has been displayed in lighthouse apparatus. In order to distinguish one light from another, some are made to revolve, while others remain stationary. The rates of revolution also vary. Again, while the majority are white, many are red, and a few green, and some revolving lights are alternately white and red. There are also other varieties. There is a bad variety called the

intermittent, made by bringing a screen before the flame; and there are double lights—for instance, the double revolving light at the Calf of Man, the ludicrously characteristic effect of which I well remember, as it seemed to wink at our passing boat, first with one and then with the other of its fiery eyes. On the night after that fearful day when the Royal Charter was wrecked, I stood on the pier at Honfleur; and, while the vessels were tossing about, the desirableness of good distinctions was deeply impressed on my mind—for there, at the mouth of the Seine, were eleven different lights, most of them having just the same appearance; but among them stood conspicuous and unmistakeable the light of Fatouville, alternately steady white, dull red, red flash, dull red, steady white. There is something peculiarly impressive in the constant change of white, white, red, at regular intervals, in such a lonely situation as the Tuskar or Cape Wrath, when seen on a dark night from the deck of a ship sailing on to the wide Atlantic.

*New sources of light.* Why should we be confined to the combustion of oil? The Pharos of the future will perhaps be as independent of it as is our present street lamp.

*Coal gas.* Though the use of gas has been frequently pressed upon the attention of the great lighthouse authorities, they have never adopted it, conceiving it to be dangerous. The municipal bodies, however, have not participated in this dread, and a large proportion of even the most important harbour lights owe their illumination to this source. Some of these are admirably managed and most efficient; but there are others which present a sad contrast—as that at Dover, of which it is reported: "The green light was only distinguishable "as the dullest of lights round the "harbour, and by a greenish or blueish "hue, not very discernible."

The same optical apparatus is applicable to a gas as to an oil-flame.

*Electric light.* All other lights that science has produced appear dim beside the splendour of that small spark which

bursts into view when the conducting wires of a powerful electric current are separated by a minute space, especially if these wires terminate in charcoal points. The worst is, that it is difficult to maintain this spark in a constant state of brilliancy. Many attempts have been made to overcome this difficulty, and many proposals have been submitted for introducing electric lights into lighthouses; but the only one which has been so introduced is that of Professor Holmes. In 1853 he was called to examine some magneto-electric machines that were intended for the decomposition of water, and it occurred to him that they might be made available for producing the charcoal light. He got the light, and set to work to perfect the apparatus. In February, 1857, he first communicated with the Trinity House; and, on December 8, 1858, this brilliant star first beamed forth over the seas from a lighthouse—that at the South Foreland—surprising the sailors, and the inhabitants on the opposite coast of France. The light, as in other cases, is derived from combustion; but it is the combustion of coal in a small steam engine, which rotates a wheel loaded with soft iron cores past another wheel loaded with permanent magnets. This calls into action a force which, carried aloft by stout wires and allowed to pass between the charcoal points of an ingeniously-constructed "lamp," produces a light which can only be compared to a fragment of the sun. The experiment

was continued for some months, and was considered successful. But the light was afterwards removed from the South Foreland, the dioptric apparatus of which was ill-adapted for it. Some improvements have since been made; and it is now fitted up with optical apparatus of its own, at Dungeness, and will, probably, be shining again before this paper is printed. It is intended that it shall be permanent. Professor Faraday, who first discovered magneto-electricity, and who is the scientific adviser of the Trinity House, has naturally taken a great interest in the development of this child of his, and in seeing it take a part in the active business of the world.

*Lime light.* Captain Drummond attempted to introduce into lighthouses the brilliant light produced by the incandescence of a piece of lime in an oxy-hydrogen flame; but, at that time, the difficulty from the cracking of the lime could not be sufficiently overcome. Mechanical genius, however, has done much to remove this, and for three months during the past autumn a light of this character was exhibited, as an experiment, at the South Foreland.

Should either this light or that from the magneto-electric machine eventually come into general use, England will have the honour of initiating an improvement in lighthouse illumination equal, if not superior, to that effected in France by the genius of Fresnel. Long may there be such a rivalry between the two nations!

## THE CURSE OF ROME.

BY RICHARD GARNETT.

[Written after reading Count Montalembert's letter to Cavour, in which he contends that the temporal power of the Pope should be maintained for the benefit of "the Catholic world."]

In France throned Despotism's foe and fear,  
 In Italy her slave and satellite !  
 Passionate champion of the monster here  
 That there he execrates, in Heaven's sight  
 Fronting undauntedly with weapons bright  
 Of scorn, and high defiance eloquent !  
 Alas ! alas ! pale Superstition's might  
 To quell the aspiring spirit else unbent,  
 Bedim the piercing eye, pervert the pure intent !

As a Brazilian traveller lulled and bled  
 By vampires, long the glorious nation lay.  
 What revelling parasites her torpor fed !  
 How learning, art, and commerce ebbed away !  
 Rivals in greatness, sisters in decay,  
 The illustrious cities 'neath the embracing blue  
 Of heaven lay corpse-like—Florence, a display  
 Of pictures ; Venice shipless ; where erst flew  
 Rome's eagles, long grass waved, and wild flowers gaily grew.

And *grow* ! But, as an arid water-course  
 Fills suddenly with foam, and speed, and power  
 Of heaven-descended torrents, whose loud force  
 Is as a trumpet citing herb and flower  
 The desolated banks to reimbower,  
 So freedom fell on Italy—a glow  
 Of life returning flashed on field and tower,  
 Romeward ascending. Who art thou wouldst go  
 Against that stream, and chide its joyous overflow ?

What ! Rome must wither 'neath the oppressor's hand,  
 Lest Reason chill the Spaniard's bigotry !  
 Augsburg, Geneva, Smithfield even did brand  
 The scarlet Church less ineffaceably  
 Than thou, her advocate ! Rome must not be free  
 Lest our creed perish !—Built upon a rock  
 I deemed it. Doth not Peter hold the key  
 Of Paradise ? Can earthly changes mock  
 Heaven's promises ?—Earth's wolves rend the celestial flock ?

The faith ye lack rebukes the faith ye hold.  
A nation must be martyred for a mass!  
“Tis fit that One for more should die,” of old  
One said, and he, methinks, was Caiaphas!  
Whom now *your* pontiff echoes, and, alas!  
The Tribune him. More speciously infer  
Poor *France's* part in Time's great drama was  
Europe's exemplar Helot—to deter  
Who to sage Law the cup of Licence might prefer.

Go to that master-labour of the priest  
Which was the rich Campagna; look around;  
Scan glutted Desolation's amplest feast—  
Scarce ruins even, nothing but the ground,  
Unhoused, untilled, untenanted, unerowned  
By any growth save Nature's; view the thirst  
Of fever preying on that ague-bound,  
Squalid, and meagre serf—then go, his worst  
Of lots prolong; but hear his malediction first!

And hear thou mine, old Church!—not for the crime  
Whereat Geneva bans, and Oxford is  
A shaker of the head.—Something sublime  
Clings spectrally to old idolatries:  
The human heart can never pray amiss,  
Praying in love! and she whose silvery tones  
Rise to the Ocean's Star, imploring his  
Safety who sails unseen, pleads and atones  
For dolls, daubs, phials, rags, dust, ashes, sweat, and bones;—

Nor only that thou resolutely art  
Joined to the despot's cause 'neath every sky,  
Till it seems lost, and then with subtlest art  
Accedest to the camp of Liberty,  
Watching the hour to stab, too soon brought nigh  
By jealousies thou dost insinuate  
Twixt brothers;—that thou scann'st with poisonous eye  
Young Science, lauding whiles with hollowest prate  
The Might thou wouldst so fair bind and emasculate;—

Not only for the venom thou dost cast  
On each sweet natural instinct of the heart;  
For all thy gaunt machinery of fast,  
Vigil, and sackcloth, and the scourge's smart,  
Till thy crushed votary becomes a part  
Of thy dread self—a ghastly chillness lain  
In thy soul-charnel—one to whom thou art  
Country, bride, mother—moulded to disdain  
Each natural human tie, so only thou mayest reign;—

Not only for the rack and screw, that wreaked  
Thy malice in the secret dungeon-base;  
Not only for the smoke-cloud and the shrieked  
Cry on God's justice in the market-place;

Nor even the myriad minds thou didst debase,  
 Pure gentle spirits, made by Him who must  
 Love, in His likeness, which thou didst deface,  
 Teaching to mock the tortures of the just,  
 And hail the merry winds that strewed earth with his dust ;—

But chiefly that, as birds of carrion find  
 The bruised spot in the living flesh, thou so  
 Spiest the frailty of the exalted mind,  
 And where to pounce on it too well dost know,  
 Profiting to their own dire overthrow  
 By Genius, Piety, Enthusiasm ;  
 Yoked in thy bonds the immortal coursers go,  
 Trampling with dismal crash and frantic spasm  
 Their like beneath their feet—so on to Ruin's chasm.

By Eloquence, Freedom's beloved child,  
 Arrayed against his mother—by Art's flowers  
 Wreathed o'er abysmal pitfalls where beguiled  
 Lies many an one whose undeluded powers  
 Had been earthquaking ruin to thy towers—  
 By every sacred thing thou hast aspersed  
 Or blighted—by the phantom-peopled hours  
 Of mental night won from the day-spring's burst  
 By thy retarding spells—accurst be thou, accurst !

Even now the dread Colossus totters, sways,  
 Reels visibly its stricken base upon,  
 And agonizing worshippers upraise  
 Pale consternated looks, as if the Sun  
 Must needs be darkness—but he still shines on ;  
 No portent brand the unterrifying home  
 Of aether and pure stars, of which may one  
 Soon with new beams illumine the eternal dome,  
 Purged from the ancient curse and sable blot of Rome !

#### ON THE AGE OF THE SUN'S HEAT.

BY PROFESSOR W. THOMSON, GLASGOW.

THE second great law of Thermodynamics involves a certain principle of *irreversible action in nature*. It is thus shown that, although mechanical energy is *indestructible*, there is a universal tendency to its dissipation, which produces gradual augmentation and diffusion of heat, cessation of motion, and exhaustion of potential energy through the material universe.<sup>1</sup> The result would inevitably

be a state of universal rest and death, if the universe were finite and left to obey existing laws. But it is impossible to conceive a limit to the extent of matter in the universe ; and therefore science points rather to an endless progress, through an endless space, of action involving the transformation of potential energy into palpable motion and thence into heat, than to a single finite mechanism, running down like a clock, and stopping for ever. It is also impossible to conceive either the beginning or the continuance of life, without an

<sup>1</sup> See Proceedings R.S.E. Feb. 1852, or Phil. Mag. 1853, first half year, "On a Universal Tendency in Nature to the Dissipation of Mechanical Energy."

overruling creative power; and, therefore, no conclusions of dynamical science regarding the future condition of the earth, can be held to give dispiriting views as to the destiny of the race of intelligent beings by which it is at present inhabited.

The object proposed in the present article is an application of these general principles to the discovery of probable limits to the periods of time, past and future, during which the sun can be reckoned on as a source of heat and light. The subject will be discussed under three heads:—

- I. The secular cooling of the sun.
- II. The present temperature of the sun.
- III. The origin and total amount of the sun's heat.

## PART I.

### ON THE SECULAR COOLING OF THE SUN.

How much the sun is actually cooled from year to year, if at all, we have no means of ascertaining, or scarcely even of estimating in the roughest manner. In the first place we do not know that he is losing heat at all. For it is quite certain that *some heat* is generated in his atmosphere by the influx of meteoric matter; and it is possible that the *amount* of heat so generated from year to year is sufficient to compensate the loss by radiation. It is, however, also possible that the sun is now an incandescent liquid mass, radiating away heat, either primitively created in his substance, or, what seems far more probable, generated by the falling in of meteors in past times, with no sensible compensation by a continuance of meteoric action.

It has been shown<sup>1</sup> that, if the former supposition were true, the meteors by which the sun's heat would have been produced during the last 2,000 or 3,000 years must have been all that time much within the earth's distance from

the sun, and must therefore have approached the central body in very gradual spirals; because, if enough of matter to produce the supposed thermal effect fell in from space outside the earth's orbit, the length of the year would have been very sensibly shortened by the additions to the sun's mass which must have been made. The quantity of matter annually falling in must, on that supposition, have amounted to  $\frac{1}{47}$  of the earth's mass, or to  $\frac{1}{170,000,000}$  of the sun's; and therefore it would be necessary to suppose the zodiacal light to amount to at least  $\frac{1}{5000}$  of the sun's mass, to account in the same way for a future supply of 3,000 years' sun-heat. When these conclusions were first published it was pointed out that "disturbances in the motions of visible 'planets'" should be looked for, as affording us means for estimating the possible amount of matter in the zodiacal light; and it was conjectured that it could not be nearly enough to give a supply of 300,000 years' heat at the present rate. These anticipations have been to some extent fulfilled in Le Verrier's great researches on the motion of the planet Mercury, which have recently given evidence of a sensible influence attributable to matter circulating as a great number of small planets within his orbit round the sun. But the amount of matter thus indicated is very small; and, therefore, if the meteoric influx taking place at present is enough to produce any appreciable portion of the heat radiated away, it must be supposed to be from matter circulating round the sun, within very short distances of his surface. The density of this meteoric cloud would have to be supposed so great that comets could scarcely have escaped as comets actually have escaped, showing no discoverable effects of resistance, after passing his surface within a distance equal to  $\frac{1}{2}$  of his radius. All things considered, there seems little probability in the hypothesis that solar radiation is compensated, to any appreciable degree, by heat generated by meteors falling in, at present; and, as it can be shown that no chemical theory

<sup>1</sup> "On the Mechanical Energies of the Solar System." Transactions of the Royal Society of Edinburgh, 1854, and Phil. Mag. 1854, second half-year.

is tenable,<sup>1</sup> it must be concluded as most probable that the sun is at present merely an incandescent liquid mass cooling.

How much he cools from year to year, becomes therefore a question of very serious import, but it is one which we are at present quite unable to answer. It is true we have data on which we might plausibly found a probable estimate, and from which we might deduce, with at first sight seemingly well founded confidence, limits, not very wide, within which the present true rate of the sun's cooling must lie. For we know, from the independent but concordant investigations of Herschel and Pouillet, that the sun radiates every year from his whole surface about  $6 \times 10^{30}$  (six million million million million) times as much heat as is sufficient to raise the temperature of 1lb. of water by 1° Cent. We also have excellent reason for believing that the sun's substance is very much like the earth's. Stokes's principles of solar and stellar chemistry have been for many years explained in the University of Glasgow, and it has been taught as a first result that sodium does certainly exist in the sun's atmosphere, and in the atmospheres of many of the stars, but that it is not discoverable in others. The recent application of these principles in the splendid researches of Bunsen and Kirchhof (who made an independent discovery of Stokes's theory) has demonstrated with equal certainty that there are iron and manganese, and several of our other known metals, in the sun. The specific heat of each of these substances is less than the specific heat of water, which indeed exceeds that of every other known terrestrial body, solid or liquid. It might, therefore, at first sight seem probable that the mean specific heat<sup>2</sup> of the sun's whole sub-

stance is less, and very certain that it cannot be much greater, than that of water. If it were equal to the specific heat of water we should only have to divide the preceding number ( $6 \times 10^{30}$ ), derived from Herschel's and Pouillet's observations, by the number of pounds ( $4.23 \times 10^{30}$ ) in the sun's mass, to find 1°.4 Cent. for the present annual rate of cooling. It might therefore seem probable that the sun cools more, and almost certain that he does not cool less, than a centigrade degree and four-tenths annually. But, if this estimate were well-founded, it would be equally just to assume that the sun's expansibility<sup>1</sup> with heat does not differ greatly from that of some average terrestrial body. If, for instance, it were the same as that of solid glass, which is about  $\frac{1}{40000}$  on bulk, or  $\frac{1}{120000}$  on diameter, per 1° Cent. (and for most terrestrial liquids, especially at high temperatures, the expansibility is much more), and if the specific heat were the same as that of liquid water, there would be in 860 years a contraction of one per cent. on the sun's diameter, which could scarcely have escaped detection by astronomical observation. There is, however, a far stronger reason than this for believing that no such amount of contraction can have taken place, and therefore for suspecting that the physical circumstances of the sun's mass render

quantity of heat which the whole body takes or gives in rising or in falling 1° in temperature, divided by the number of units in its mass. The expression, "mean specific heat" of the sun, in the text, signifies the total amount of heat actually radiated away from the sun, divided by his mass, during any time in which the average temperature of his mass sinks by 1°, whatever physical or chemical changes any part of his substance may experience.

<sup>1</sup> The "expansibility in volume," or the "cubical expansibility," of a body, is an expression technically used to denote the proportion which the increase or diminution of its bulk, accompanying a rise or fall of 1° in its temperature, bears to its whole bulk at some stated temperature. The expression, "the sun's expansibility," used in the text, may be taken as signifying the ratio which the actual contraction, during a lowering of his mean temperature by 1° Cent., bears to his present volume.

<sup>2</sup> "Mechanical Energies," &c.

<sup>2</sup> The "specific heat" of a homogeneous body is the quantity of heat that a unit of its substance must acquire or must part with, to rise or to fall by 1° in temperature. The mean specific heat of a heterogeneous mass, or of a mass of homogeneous substance, under different pressures in different parts, is the

the condition of the substances of which it is composed, as to expansibility and specific heat, very different from that of the same substances when experimented on in our terrestrial laboratories. Mutual gravitation between the different parts of the sun's contracting mass must do an amount of work, which cannot be calculated with certainty, only because the law of the sun's interior density is not known. The amount of work performed on a contraction of one-tenth per cent. of the diameter, if the density remained uniform through the interior, would, as Helmholtz showed, be equal to 20,000 times the mechanical equivalent of the amount of heat which Pouillet estimated to be radiated from the sun in a year. But in reality the sun's density must increase very much towards his centre, and probably in varying proportions, as the temperature becomes lower and the whole mass contracts. We cannot, therefore, say whether the work actually done by mutual gravitation during a contraction of one-tenth per cent. of the diameter, would be more or less than the equivalent of 20,000 years' heat; but we may regard it as most probably not many times more or less than this amount. Now, it is in the highest degree improbable that mechanical energy can in any case increase in a body contracting in virtue of cooling. It is certain that it really does diminish very notably in every case hitherto experimented on. It must be supposed, therefore, that the sun always radiates away in heat something more than the Joule-equivalent of the work done on his contracting mass, by mutual gravitation of its parts. Hence, in contracting by one-tenth per cent. in his diameter, or three-tenths per cent. in his bulk, the sun must give out something either more, or not greatly less, than 20,000 years' heat; and thus, even without historical evidence as to the constancy of his diameter, it seems safe to conclude that no such contraction as that calculated above one per cent. in 860 years, can have taken place in reality. It seems, on the contrary, probable that, at the present rate of ra-

diation, a contraction of one-tenth per cent. in the sun's diameter could not take place in much less than 20,000 years, and scarcely possible that it could take place in less than 8,600 years. If, then, the mean specific heat of the sun's mass, in its actual condition, is not more than ten times that of water, the expansibility in volume must be less than  $\frac{1}{1000}$  per  $100^{\circ}$  Cent., (that is to say, less than  $\frac{1}{10}$  of that of solid glass,) which seems improbable. But although from this consideration we are led to regard it as probable that the sun's specific heat is considerably more than ten times that of water (and, therefore, that his mass cools considerably less than  $100^{\circ}$  in 700 years, a conclusion which, indeed, we could scarcely avoid on simply geological grounds), the physical principles we now rest on fail to give us any reason for supposing that the sun's specific heat is more than 10,000 times that of water, because we cannot say that his expansibility in volume is probably more than  $\frac{1}{100}$  per  $1^{\circ}$  Cent. And there is, on other grounds, very strong reason for believing that the specific heat is really much less than 10,000. For it is almost certain that the sun's mean temperature is even now as high as  $14,000^{\circ}$  Cent.; and the greatest quantity of heat that we can explain, with any probability, to have been by natural causes ever acquired by the sun (as we shall see in the third part of this article), could not have raised his mass at any time to this temperature, unless his specific heat were less than 10,000 times that of water.

We may therefore consider it as rendered highly probable that the sun's specific heat is more than ten times, and less than 10,000 times, that of liquid water. From this it would follow with certainty that his temperature sinks  $100^{\circ}$  Cent. in some time from 700 years to 700,000 years.

What then are we to think of such geological estimates as 300,000,000 years for the "denudation of the Weald?" Whether is it more probable that the physical conditions of the sun's matter differ 1,000 times more than dynamics

compel us to suppose they differ from those of matter in our laboratories; or that a stormy sea, with possibly channel tides of extreme violence, should encroach on a chalk cliff 1,000 times more rapidly than Mr. Darwin's estimate of one inch per century?

## PART II.

### ON THE SUN'S PRESENT TEMPERATURE.

At his surface the sun's temperature cannot, as we have many reasons for believing, be incomparably higher than temperatures attainable artificially in our terrestrial laboratories.

Among other reasons it may be mentioned that the sun radiates heat, from every square foot of his surface, at only about 7,000 horse power.<sup>1</sup> Coal, burning at a rate of a little less than a pound per two seconds, would generate the same amount; and it is estimated ('Rankine, Prime Movers,' p. 285, Ed. 1859) that, in the furnaces of locomotive engines, coal burns at from one pound in thirty seconds to one pound in ninety seconds, per square foot of grate-bars. Hence heat is radiated from the sun at a rate not more than from fifteen to forty-five times as high as that at which heat is generated on the grate-bars of a locomotive furnace, per equal areas.

The interior temperature of the sun is probably far higher than that at his surface, because direct conduction can play no sensible part in the transference of heat between the inner and outer portions of his mass, and there must be an approximate *convective* equilibrium of heat throughout the whole, if the whole is fluid. That is to say, the temperatures, at different distances from the centre, must be approximately those which any portion of the substance, if carried from the centre to the

<sup>1</sup> One horse power in mechanics is a technical expression (following Watt's estimate), used to denote a rate of working in which energy is evolved at the rate of 33,000 foot pounds per minute. This, according to Joule's determination of the dynamical value of heat, would, if spent wholly in heat, be sufficient to raise the temperature of 23½ lbs. of water by 1° Cent. per minute.

surface, would acquire by expansion without loss or gain of heat.

## PART III.

### ON THE ORIGIN AND TOTAL AMOUNT OF THE SUN'S HEAT.

THE sun being, for reasons referred to above, assumed to be an incandescent liquid now losing heat, the question naturally occurs, How did this heat originate? It is certain that it cannot have existed in the sun through an infinity of past time, since, as long as it has so existed, it must have been suffering dissipation, and the finiteness of the sun precludes the supposition of an infinite primitive store of heat in his body.

The sun must, therefore, either have been created an active source of heat at some time of not immeasurable antiquity, by an over-ruling decree; or the heat which he has already radiated away, and that which he still possesses, must have been acquired by a natural process, following permanently established laws. Without pronouncing the former supposition to be essentially incredible, we may safely say that it is in the highest degree improbable, if we can show the latter to be not contradictory to known physical laws. And we do show this and more, by merely pointing to certain actions, going on before us at present, which, if sufficiently abundant at some past time, must have given the sun heat enough to account for all we know of his past radiation and present temperature.

It is not necessary at present to enter at length on details regarding the meteoric theory, which appears to have been first proposed in a definite form by Mayer, and afterwards independently by Waterston; or regarding the modified hypothesis of meteoric vortices, which the writer of the present article showed to be necessary, in order that the length of the year, as known for the last 2,000 years, may not have been sensibly disturbed by the accessions which the sun's mass must have had during that period, if the heat radiated away has been

always compensated by heat generated by meteoric influx.

For the reasons mentioned in the first part of the present article, we may now believe that all theories of complete, or nearly complete, contemporaneous meteoric compensation, must be rejected; but we may still hold that—

*"Meteoric action . . . is not only proved to exist as a cause of solar heat, but it is the only one of all conceivable causes which we know to exist from independent evidence."<sup>1</sup>*

The form of meteoric theory which now seems most probable, and which was first discussed on true thermodynamic principles by Helmholtz,<sup>2</sup> consists in supposing the sun and his heat to have originated in a coalition of smaller bodies, falling together by mutual gravitation, and generating, as they must do according to the great law demonstrated by Joule, an exact equivalent of heat for the motion lost in collision.

That some form of the meteoric theory is certainly the true and complete explanation of solar heat can scarcely be doubted, when the following reasons are considered:

(1). No other natural explanation, except by chemical action, can be conceived.

(2). The chemical theory is quite insufficient, because the most energetic chemical action we know, taking place between substances amounting to the whole sun's mass, would only generate about 3,000 years' heat.<sup>3</sup>

(3). There is no difficulty in accounting for 20,000,000 years' heat by the meteoric theory.

It would extend this article to too great a length, and would require something of mathematical calculation, to explain fully the principles on which this last estimate is founded. It is enough to say that bodies, all much smaller than the sun, falling together from a state of relative rest, at mutual distances all large in comparison with their diameters,

and forming a globe of uniform density equal in mass and diameter to the sun, would generate an amount of heat which, accurately calculated according to Joule's principles and experimental results, is found to be just 20,000,000 times Pouillet's estimate of the annual amount of solar radiation. The sun's density must, in all probability, increase very much towards his centre, and therefore a considerably greater amount of heat than that must be supposed to have been generated if his whole mass was formed by the coalition of comparatively small bodies. On the other hand, we do not know how much heat may have been dissipated by resistance and minor impacts before the final conglomeration; but there is reason to believe that even the most rapid conglomeration that we can conceive to have probably taken place could only leave the finished globe with about half the entire heat due to the amount of potential energy of mutual gravitation exhausted. We may, therefore, accept, as a lowest estimate for the sun's initial heat, 10,000,000 times a year's supply at present rate, but 50,000,000 or 100,000,000 as possible, in consequence of the sun's greater density in his central parts.

The considerations adduced above, in this paper, regarding the sun's possible specific heat, rate of cooling, and superficial temperature, render it probable that he must have been very sensibly warmer one million years ago than now; and, consequently, that if he has existed as a luminary for ten or twenty million years, he must have radiated away considerably more than the corresponding number of times the present yearly amount of loss.

It seems, therefore, on the whole most probable that the sun has not illuminated the earth for 100,000,000 years, and almost certain that he has not done so for 500,000,000 years. As for the future, we may say, with equal certainty, that inhabitants of the earth cannot continue to enjoy the light and heat essential to their life, for many million years longer, unless sources now unknown to us are prepared in the great storhouse of creation.

<sup>1</sup> "Mechanical Energies of the Solar System."

<sup>2</sup> Popular lecture delivered on the 7th February, 1854, at Königsberg, on the occasion of the Kant commemoration.

<sup>3</sup> "Mechanical Energies of the Solar System."

## RAVENS H O E.

BY HENRY KINGSLEY, AUTHOR OF "GEOFFRY HAMLYN."

## CHAPTER LI.

## IN WHICH CHARLES COMES TO LIFE AGAIN.

HA ! This was life again. Better this than dawdling about at the heels of a dandy, or sitting on a wheelbarrow in a mews ! There is a scent here sweeter than that of the dunghill, or the dandy's essences—what is it ? The smell of tar, and bilge water, and red herrings. There is a fresh whiff of air up this narrow street, which moves your hair, and makes your pulse quicken. It is the free wind of the sea. At the end of the street are ships, from which comes the clinking of cranes ; pleasanter music sometimes than the song of nightingales.

Down the narrow street towards the wharf come the hussars. Charles is among them. On the wharf, in the confusion, foremost, as far as he dare, to assist. He was known as the best horseman in the troops, and, as such, was put into dangerous places. He had attracted great attention among the officers by his fearlessness and dexterity. The captain had openly praised him ; and, when the last horse had been slung in, and the last cheer given, and the great ship was away down the river, on her message of wrath, and woe, and glory, Charles was looking back at Southampton spires, a new man, with a new career before him.

The few months of degradation, of brooding misery, of listlessness and helplessness he had gone through, made this short episode in his life appear the most happy and most beautiful of all. The merest clod of a recruit in the regiment felt in some way ennobled and exalted ; but as for Charles, with his intensely sensitive, romantic nature, he was quite, as the French say, *tête montée*. The lowest menial drudgery was exalted and

glorified. Groom his horse and help clean the deck ? Why not ? That horse must carry him in the day of the merry meeting of heroes. Hard living, hard work, bad weather, disease, death : what were they, with his youth, health, strength, and nerve ? Not to be thought of save with a smile. Yes, this expedition of his to the Crimea was the noblest, and possibly the happiest in his life. To use a borrowed simile, it was like the mournful, beautiful autumn sunset, before the dark night closes in. He felt like a boy at midsummer, exploring some wood or distant valley, watched from a distance long, and at last attained ; or as one feels when, a stranger in a new land, one first rides forth alone into the forest on some distant expedition, and sees the new world, dreamt of and longed for all one's life, realized at last, and expanding leaf by leaf before one. In a romantic state of mind. I can express it no better.

And really it is no wonder that a man, not sea-sick, should have been in a state of wonder, eager curiosity, kindness, and above all, high excitement—which four states of mind, I take it, make up together the state of mind called romantic, quixotic, or chivalrous ; which is a very pleasant state of mind indeed. For curiosity, there was enough to make the dullest man curious. Where were they going ? Where would the blow be struck ? Where would the dogs of war first fix their teeth ? Would it be a campaign in the field, or a siege, or what ? For kindness : were not his comrades a good set of brave, free-hearted lads, and was not he the favourite among them ? As for wonder and excitement, there was plenty of that, and it promised to last. Why, the ship herself was a wonder. The biggest in the world, carrying 500 men and horses ; and every man

in the ship knew, before she had been five hours at sea, that that quiet looking commander of hers was going to race her out under steam the whole way. Who could tire of wondering at the glimpse one got down the iron-railed well into the machinery, at the busy cranks and leaping pistons, or, when tired of that, at the strange dim vista of swinging horses between decks? Wonder and excitement enough here to keep twenty Don Quixotes going! Her very name too was romantic—*Himalaya*.

A north-east wind and a mountain of rustling white canvass over head. Blue water that seethed and creamed, and roared past to leeward. A calm, and the Lizard to the north, a dim grey cape. A south-west wind, and above a mighty cobweb of sail-less rigging. Top-gallant masts sent down and yards close hauled. Still, through it all, the busy clack and rattle of the untiring engine.

A dim wild sunset, and scudding prophet clouds that hurried from the west across the crimson zenith, like witches towards a sabbath. A wind that rose and grew as the sun went down, and hummed in the rigging as the bows of the ship dipped into the trough of the waves. A night of storm and terror; in the morning, the tumbling broken seas of Biscay. A few fruit brigs scudding wildly here and there, and a cape on a new land, a high round down showing a gleam of green among the flying mists.

Sail set again before a northerly wind, and the ship rolling before it like a jolly drunkard. Then a dim cloud of smoke before them. Then the great steamer *Bussorah*, thundering forward against the wind, tearing furiously at the leaping seas with her iron teeth. A hurried glimpse of fluttering signals, and bare wet empty decks, and, before you had time to say what a noble ship she was, and what good weather she was making of it, only a cloud of smoke miles astern.

Now a dark line, too faint for landsmen's eyes, far a-head, which changed into a loom of land, which changed into

a cloud, which changed into a dim peak towering above the sea mists, which changed into a tall crag, with a town, and endless tiers of white fortification—Gibraltar.

Then a strong west wind for three days, carrying the ship flying before it with all plain sail set, and each day, at noon, a great excitement on the quarter deck, among the officers. On the third day much cheering and laughter, and shaking of hands with the commander. Charles, catching an opportunity, took leave to ask his little friend the cornet, what it meant. The *Himalaya* had run a thousand miles in sixty-three hours.<sup>1</sup>

And now at sunrise another island is in sight, flat, bald, blazing yellow in the morning sun, with a solitary flat-topped mass of buildings just in the centre, which the sailors say is Civita Vecchia; and, as they sweep round the southern point of it, a smooth bay opens, and there is a flat-roofed town rising in tiers from the green water—above heavier fortifications than those of Gibraltar, Charles thinks, but wrongly. Right and left, two great forts, St. Elmo and St. Angelo, say the sailors, and that flight of stone steps, winding up into the town, is the Nix Mangare stairs. A flood of historical recollections comes over Charles, and he recognises the place as one long known and very dear to him. On those very stairs, Mr. Midshipman Easy stood, and resolved that he would take a boat and sail to Gozo. What followed on his resolution is a matter of history. Other events have taken place at Malta, but Charles did not think of them; not even of St. Paul and the viper, or the old windy dispute, in Greek Testament lecture, between this Melita and the other one off the coast of Illyricum. He thought of Midshipman Easy, and was comforted in his mind.

I suppose that, if I knew my business properly, I should at this point represent Charles as falling down the companion-

<sup>1</sup> The most famous voyage of the *Himalaya*, from Cork to Varna in twelve days, with the Fifth Dragoon Guards, took place in June. The voyage here described is, as will be perceived, a subsequent one, but equally successful, apparently.

ladder and spraining his ankle, or as having over-eaten himself, or something of that sort, and so pass over the rest of the voyage by saying that he was confined to his bunk, and saw no more of it. But I am going to do nothing of the sort, for two reasons. In the first place, because he did not do anything of the kind ; and in the next, because he saw somebody at Constantinople, of whom I am sure you will be glad to hear again.

Charles had seen Tenedos golden in the east, and Lemnos purple in the west, as the sun went down ; then, after having steamed at half-speed through the Dardanelles, was looking the next evening at Constantinople, and at the sun going down behind the minarets, and at all that sort of thing, which is no doubt very beautiful, but of which one seems to have heard once or twice before. The ship was lying at anchor, with fires banked, and it was understood that they were waiting for a Queen's messenger.

They could see their own boat, which they had sent to wait for him at Seraglio Point. One of the sailors had lent Charles a telescope—a regular old brute of a telescope, with a crack across the object-glass. Charles was looking at the boat with it, and suddenly said, "There he is."

He saw a small grey-headed man, with moustaches, come quickly down and get into the boat, followed by some Turks with his luggage. This was Colonel Oldhoss, the Queen's messenger ; but there was another man with him, whom Charles recognised at once. He handed the telescope to the man next him, and walked up and down the deck rapidly.

"I should like to speak to him," he thought, "if it were only one word. Dear old fellow. But then he will betray me, and they will begin persecuting me at home, dear souls. I suppose I had better not. No. If I am wounded and dying I will send for him. I will not speak to him now."

The Queen's messenger and his companion came on board, and the ship got under way and steamed through the

Bosphorus out into the wild seething waves of the "Fena Kara degniz," and Charles turned in without having come near either of them. But in the chill morning, when the ship's head was north-west, and the dawn was flushing up on the distant Thracian Sierra, Charles was on deck, and, while pausing for an instant in his duties, to look westward, and try to remember what country and what mountains lay to the north-west of Constantinople, a voice behind him said quietly, "Go find me Captain Crcker, my man." He turned and was face to face with General Mainwaring.

It was only for an instant, but their eyes met ; the general started, but he did not recognise him. Charles's moustache had altered him so much that it was no great wonder. He was afraid that the general would seek him out again, but he did not. These were busy times. They were at Varna that night.

Men were looking sourly at one another. The French expedition had just come in from Kustendji in a lamentable state, and the army was rotting in its inactivity. You know all about that as well as I can tell you ; what is of more importance to us is, that Lieutenant Hornby had been down with typhus, and was recovering very slowly, so that Charles's chances of meeting him were very small.

What am I to do with this three weeks or more at Varna to which I have reduced Charles, you, and myself? Cut it very short, I should say. Charles and his company were, of course, moved up at once to the cavalry camp at Devna, eighteen miles off, among the pleasant hills and woodlands. Once, his little friend, the young cornet, who had taken a fancy for him, made him come out shooting with him to carry his bag. And they scrambled and clambered, and they tore themselves with thorns, and they fell down steep places, and utterly forgot their social positions towards one another. And they tried to carry home every object which was new to them, including a live turtle and a basaltic column. And they saw a green lizard, who arched his tail and galloped away

like a racehorse, and a grey lizard, who let down a bag under his chin and barked at them like a dog. And the cornet shot a quail, and a hare, and a long-tailed francolin, like a pheasant, and four woodpigeons. And, lastly, they found out that, if you turned over the stones, there were scorpions under them, who tucked their claws under their armpits, as a man folds his arms, and sparred at them with their tails, drawing their sting in and out, as an experienced boxer moves his left hand when waiting for an attack. Altogether, they had a glorious day in a new country, and did not remember in what relation they were to one another till they topped the hill above Devna by moonlight, and saw the two long lakes, stretching towards the sea, broken here and there into silver ripples by the oars of the commissariat boats. A happy innocent school-boy day—the sort of day which never comes if we prepare for it and anticipate it, but which comes without warning, and is never forgotten !

Another day the cornet had business in Varna, and he managed that Charles should come with him as orderly ; and with him, as another orderly, went the young lad who spoke about his sister in the pot-house at Windsor : for this lad was another favourite of the cornet's, being a quiet gentlemanly lad, in fact a favourite with everybody. A very handsome lad, too ! And the three went branking bravely down the hill-side, through the woodlands, over the steaming plain, into the white dirty town. And the cornet must stay and dine with the mess of the 42d, and so Charles and the other lad might go where they would. And they went and bathed, and then, when they had dressed, they stood together under the burning white wall, looking over the wicked Black Sea, smoking, and Charles told his comrade about Ravenshoe, about the deer, and the pheasants, and the blackcock, and about the big trout that lay nosing up into the swift places, in the cool clear water. And suddenly the lad turned on him, with his handsome face livid with agony and horror, and clutched him

convulsively by both arms, and prayed him, for God Almighty's sake—

There, that will do. We need not go on. The poor lad was dead in four hours. The cholera was very prevalent at Varna that month, and those who dawdled about in the hot sun, at the mouth of the filthy drains of that accursed hole, found it unto their cost. We were fighting, you see, to preserve the town to those worthless dirty Turks, against the valiant, noble, but, I fear, equally dirty Russians. The provoking part of the Russian war was, that all through we respected and liked our gallant enemies far more than we did the useless rogues for whom we were fighting. Moreover, our good friends the French seem to have been more struck by this absurdity than ourselves.

I only mentioned this sad little incident to show that this Devna life among the pleasant woodlands was not all sunshine ; that now and then Charles was reminded, by some tragedy like this, that vast masses of men were being removed from ordinary occupations and duties into an unusual and abnormal mode of life, and that nature was revenging herself for the violation of her laws.

You see that we have got through this three weeks more pleasantly than they did at Varna. Charles was sorry when the time came for breaking up the camp among the mountain woodlands. The more so, as it had got about among the men that they were only to take Sebastopol by a sudden attack in the rear, and spend the winter there. There would be no work for the cavalry, every one said.

It is just worthy of notice how, when one once begins a vagabond life, one gets attached to a place where one may chance to rest even for a week. When one gets accustomed to a change of locality every day for a long while, a week's pause gives one more familiarity with a place than a month's residence in a strange house would give if one were habitually stationary. This remark is almost a platitude, but just worth writing down. Charles liked Devna, and

had got used to it, and parted from it as he would from a home.

This brings us up to the point where, after his death and burial, I have described him as riding along the shore of the bay of Eupatoria, watching the fleet. The 140th had very little to do. They were on the extreme left ; on the 17th they thought they were going to have some work, for they saw 150 of the lancers coming in, driving a lot of cattle before them, and about 1,000 Cossacks hanging on their rear. But, when some light dragoons rode leisurely out to support them, the Cossacks rode off, and the 140th were still condemned to inactivity.

Hornby had recovered, and was with the regiment. He had not recognised Charles, of course. Even if he had come face to face with him, it was almost unlikely that he would have recognised him in his moustache. They were not to meet as yet.

In the evening of the 19th there was a rumble of artillery over the hill in front of them, which died away in half an hour. Most of the rest of the cavalry were further to the front of the extreme left, and were "at it," so it was understood, with the Cossacks. But the 140th were still idle.

On the morning of the 20th, Charles and the rest of them, sitting in their saddles, heard the guns booming in front and on the right. It became understood among the men that the fleet was attacking some batteries. Also, it was whispered that the Russians were going to stand and fight. Charles was sixth man from the right of the rear rank of the third troop. He could see the tails of the horses immediately before him, and could remark that his front-rank man had a great patch of oil on the right shoulder of his uniform. He could also see Hornby in the troop before him.

These guns went moaning on in the distance till half-past one ; but still they sat there idle. About that time there was a new sound in the air, close on their right, which made them prick up their ears and look at one another. Even

the head of the column could have seen nothing, for they were behind the hill. But all could hear, and guess. We all know that sound well enough now. You hear it now, thank God, on every village green in England when the cricket is over. Crack, crack ! Crack, crack ! The noise of advancing skirmishers !

And so it grew from the right towards the front, towards the left, till the air was filled with the shrill treble of musketry. Then, as the French skirmished within reach of the artillery, the deep bass roared up, and the men, who dared not whisper before, could shout at one another without rebuke.

Louder again, as our artillery came into range. All the air was tortured with concussion. Charles would have given ten years of his life to know what was going on on the other side of the hill. But no. There they sat, and he had to look at the back of the man before him ; and at this time he came to the conclusion that the patch of grease on his right shoulder was of the same shape as the map of Sweden.

A long weary two hours or more was spent like this. Charles, by looking forward and to the right, between the two right-hand men of the company before him, could see the ridge of the hill, and see the smoke rising from beyond it, and drifting away to the left before the sea-breeze. He saw an aide-de-camp come over that ridge and dismount beside the captain of Hornby's company, loosening his girths. They laughed together ; then the captain shouted to Hornby, and he laughed and waved his sword over his head. After this, he was reduced to watching the back of the man before him, and studying the map of Sweden. It was becoming evident that the map of North America, if it existed, must be on his left shoulder, under his hussar jacket, and that the Pacific Islands must be round in front, about his left breast, when the word was given to go forward.

They advanced to the top of the hill, and wheeled. Charles, for one instant, had a glimpse of the valley below, seething and roaring like a volcano. Everywhere

bright flashes of flame, single, or running along in lines, or blazing out in volleys. The smoke, driven to the left by the wind, hung across the valley like a curtain. On the opposite hill a ring of smoke and fire, and in front of it a thin scarlet line disappearing. That was all. The next moment they wheeled to the right, and Charles saw only the back of the man before him, and the patch of grease on his shoulder.

But that night was a night of spurs for them. Hard riding for them far into the night. The field of the Alma had been won, and they were ordered forward to harass the Cossacks, who were covering the rear of the Russian army. They never got near them. But ever after, when the battle of the Alma was mentioned before him, Charles at once used to begin thinking of the map of Sweden.

### CHAPTER LII.

WHAT LORD SALTIRE AND FATHER MACKWORTH SAID WHEN THEY LOOKED OUT OF WINDOW.

"AND how do you do, my dear sir?" said Lord Saltire.

"I enjoy the same perfect health as ever, I thank you, my lord," said Father Mackworth. "And allow me to say, that I am glad to see your lordship looking just the same as ever. You may have forgotten that you were the greatest benefactor I ever had. I have not."

"Nay, nay," said Lord Saltire. "Let byegones be byegones, my dear sir. By the bye, Mr. Mackworth—Lord Hainault."

"I am delighted to see you at Casterton, Mr. Mackworth," said Lord Hainault. "We are such rabid Protestants here, that the mere presence of a Catholic ecclesiastic of any kind is a source of pleasurable excitement to us. When, however, we get among us a man like you—a man of whose talents we have heard so much, and a man personally endeared to us, through the

love he bore to one of us who is dead, we give him a threefold welcome."

Lord Saltire used, in his *tête-à-têtes* with Lady Ascot, to wish to Gad that Hainault would cure himself of making speeches. He was one of the best fellows in the world, but he would always talk as if he was in the House of Lords. This was very true about Lord Hainault; but, although he might be a little stilted in his speech, he meant every word he said, and was an affectionate, good-hearted man, and withal, in a way, a clever one.

Father Mackworth bowed, and was pleased with the compliment. His nerve was in perfect order, and he was glad to find that Lord Hainault was well inclined towards him, though just at this time Lord Hainault was of less importance to him than one of the grooms in the stable. What he required of himself just now was to act and look in a particular way, and to do it naturally and without effort. His genius rose to the situation. He puzzled Lord Saltire.

"This is a sad business," said Lord Saltire.

"A bitter business, my lord," said Mackworth. "I loved that man, my lord."

He looked suddenly up as he said it, and Lord Saltire saw that he was in earnest. He waited for him to go on, watching him intently with his eyelids half dropped over his grey eagle eyes.

"That is not of much consequence, though," said Father Mackworth. "Speaking to a man of the world, what is more to the purpose is to hear what is the reason of your lordship's having sought this interview. I am very anxious to know that, and so, if I appear rude, I must crave forgiveness."

Lord Saltire looked at him minutely and steadily. How he looked was of more importance to Lord Saltire than what he said. On the other hand, Mackworth every now and then calmly and steadily raised his eyes to Lord Saltire's, and kept them fixed there while he spoke to him.

"Not at all, my dear sir," said Lord Saltire. "If you will have business

first, however, which is possibly the best plan, we will have it, and improve our acquaintance afterwards. I asked you to come to me to speak of family matters. You have seen our advertisement?"

"I have, indeed," said Mackworth, looking up with a smile. "I was utterly taken by surprise. Do you think you can be right about this marriage?"

"Oh! I am sure of it," said Lord Saltire.

"I cannot believe it," said Mackworth. "And I'll tell you why. If it ever took place, I *must* have heard of it. Father Clifford, my predecessor, was Petre Ravenshoe's confessor. I need not tell you that he must have been in possession of the fact. Your knowledge of the world will tell you how impossible it is that, in a house so utterly priest-ridden as the House of Ravenshoe, an affair of such moment could be kept from the knowledge of the father-confessor. Especially when the delinquent, if I may so express myself, was the most foolishly bigoted, and cowardly representative of that house which had appeared for many generations. I assure you, upon my honour, that Clifford *must* have known of it. And, if he had known of it, he must have communicated it to me. No priest could possibly have died without leaving such a secret to his successor; a secret which would make the owner of it—that is, the priest—so completely the master of Ravenshoe and all in it. I confessed that man on his deathbed, my lord," said Mackworth, looking quietly at Lord Saltire, with a clear, honest smile, "and I can only tell you, if you can bring yourself to believe a priest, that there was not one word said about this marriage."

"No?" said Lord Saltire, pensively looking out of the window. "And yet Lady Ascot seems so positive."

"I sincerely hope," said Mackworth, "that she may be wrong. It would be a sad thing for me. I am comfortable and happy at Ravenshoe. Poor dear Cuthbert has secured my position there during my lifetime. The present Mr. Ravenshoe is not so tractable as his

brother, but I can get on well enough with him. But, in case of this story being true, and Mr. Charles Horton coming back, my position would be untenable, and Ravenshoe would be in Protestant hands for the first time in history. I should lose my home, and the Church would lose one of its best houses in the west. The best, in fact. I had sooner be at Ravenshoe than at Segur. I am very much pleased at your lordship's having sought this conference. It shows you have some trust in me, to consult me upon a matter in which my own interests are all on one side."

Lord Saltire bowed. "There is another way to look at the matter, too, my dear sir. In case of our proving our case, which is possible, and in case of our poor dear Charles dying or getting killed, which is probable, why then William comes in for the estate again. Suppose, now, such a possibility as his dying without heirs; why, then, Miss Ravenshoe is the greatest heiress in the west of England. Have you any idea where Miss Ravenshoe is?"

Both Lord Saltire and Lord Hainault turned on him as the former said this. For an instant Mackworth looked inquiringly from one to the other, with his lips slightly parted, and said, "Miss Ravenshoe?" Then he gave a half-smile of intelligence, and said, "Ah! yes; I was puzzled for a moment. Yes, in that case poor Ellen would be Miss Ravenshoe. Yes, and the estate would remain in Catholic hands. What a prospect for the Church! A penitent heiress! The management of 12,000*l.* a-year! Forgive my being carried away for a moment. You know I am an enthusiastic Churchman. I have been bound, body and soul, to the Church from a child, and such a prospect, even in such remote perspective, has dazzled me. But I am afraid I shall see rather a large family of Ravenshoes between me and such a consummation. William is going to marry."

"Then you do not know where poor Ellen is?" said Lord Saltire.

"I do not," said Mackworth; "but I certainly shall try to discover, and

most certainly I shall succeed. William might die on this very expedition. You might prove your case. If anything were to happen to William, I most certainly hope you may, and will give you every assistance. As it is, I shall not move in the matter. I shall not help you to bring a Protestant to Ravenshoe. Now don't think me a heartless man for talking like this; I am nothing of the kind. But I am talking to two very shrewd men of the world, and I talk as a man of the world; that is all."

At this point, Lord Hainault said, "What is that?" and left the room. Lord Saltire and Mackworth were alone together.

"Now, my dear sir," said Lord Saltire, "I am glad you have spoken merely as a man of the world. It makes matters so much easier. You could help us if you would."

Mackworth laughed. "Of course I could, my lord. I could bring the whole force of the Catholic Church, at my back, to give assistance. With our powers of organization, we could discover all about the marriage in no time (if it ever took place, which I don't choose to believe just now). Why it would pay us to search minutely every register in England, if it were to keep such a house in the hands of the Church. But, my lord, the Catholic Church, in my poor person, politely declines to move all its vast machinery, to give away one of its best houses to a Protestant.

"I never supposed that the dear old lady would do anything of the kind. But, as for Mr. Mackworth, will nothing induce him to move his vast machinery in our cause?"

"I am all attention, my lord."

"In case of our finding Charles, then?"

"Yes," said Mackworth, calmly.

"Twenty thousand?"

"No," said Mackworth. "It wouldn't do. Twenty million wouldn't do. You see there is a difference between a soldier disguising himself, and going into the enemy's camp, to lie, and it may be, murder, to gain information for his own side, and the same soldier deserting to

the enemy, and giving information. The one is a hero, and the other a rogue. I am a hero. You must forgive me putting matters so coarsely, but you distrust me so entirely that I am forced to do so."

"I do not think you have put it so coarsely," said Lord Saltire. "I have to ask your forgiveness for this offer of money, which you have so nobly refused. They say, every man has his price. If this is the case, yours is a very high one, and you should be valued accordingly."

"Now, my lord, before we conclude this interview, let me tell you two things, which may be of advantage to you. The first is, that you cannot buy a Jesuit."

"A Jesuit!"

"Ay. And the next thing is this. This marriage of Petre Ravenshoe is all a fiction of Lady Ascot's brain. I wish you good morning, my lord."

There are two sides to every door. You grant that. A man cannot be in two places at once. You grant that, without the exception made by the Irish member. Very well then. I am going to describe what took place on both sides of the library door at the conclusion of this interview. Which side shall I describe first?

That is entirely as I choose, and I choose to describe the outside first. The side where Father Mackworth was. This paragraph and the last are written in imitation of the Shandean-Southey-Doctorian style. The imitation is a bad one, I find, and approaches nearer to the lower style known as Swivellerism; which consists in saying the first thing that comes into your head. Any style would be quite allowable, merely as a rest to one's aching head, after the dreadfully keen encounter between Lord Saltire and Father Mackworth, recorded above. But I must get on.

When Mackworth had closed the library door behind him, he looked at it for a moment, as if to see it was safe, and then his whole face underwent a change. It grew haggard and anxious, and, as he parted his lips to moisten them, the lower one trembled. His eyes

seemed to grow more prominent, and a leaden ring began to settle round them ; he paused in a window, and raised his hand towards his head. When he had raised it half way he looked at it ; it was shaking violently.

"I am not the man I was," he said. "These great field-days upset me. My nerve is going, God help me. It is lucky that I was really puzzled by his calling her Miss Ravenshoe. If I had not been all abroad, I could never have done so well. I must be very careful. My nerve ought not to go like this. I have lived a temperate life in every way. Possibly a little too temperate. I won't go through another interview of this kind without wine. It is not safe."

"The chances are ten to one in favour of one never hearing of Charles again. Shot and steel and cholera. Then William only to think of. In that case I am afraid I should like to bring in the elder branch of the family, to that young gentleman's detriment. I wish my nerve was better ; this irritability increases on me in spite of all my care. I wish I could stand wine."

"Ravenshoe, with Ellen for its mistress, and Mackworth living there as her master ! A penitential devotee, and a clever man for confessor ! And twelve thousand a-year ! If we Jesuits were such villains as the Protestants try to make us out, Master William would be unwise to live in the house with me."

"I wonder if Lord Saltire guesses that I hold the clue in my hand. I can't remember the interview, or what I said. My memory begins to go. They should put a younger man in such a place. But I would not yield to another man. No. The stakes are too high. I wish I could remember what I said."

"Does William dream that, in case of Charles's death, he is standing between me and the light ? At all events, Lord Saltire sees it. I wonder if I committed myself. I remember I was very honest and straightforward. What was it I said at last ? I have an uneasy feeling about that, but I can't remember."

"I hope that Bridger will keep the girl well in hand. If I was to get ill, it

would all rest with him. God ! I hope I shall not get ill."

Now we will go to the other side of the door. Lord Saltire sat quietly upright in his chair until the door was safely closed. Then he took a pinch of snuff. He did not speak aloud, but he looked cunningly at the door, and said to himself

"Odd !"

Another pinch of snuff. Then he said aloud, "Uncommon curious, by Ged."

"What is curious ?" said Lord Hainault, who had come into the room.

"Why, that fellow. He took me in to the last moment. I thought he was going to be simply honest ; but he betrayed himself by over-eagerness at the end. His look of frank honesty was assumed ; the real man came out in the last sentence. You should have seen how his face changed, when he turned sharply on me, after fancying he had lulled suspicion to sleep, and told me that the marriage was a fiction. He forgot his manners for the first time, and laid his hand upon my knee."

Lord Hainault said, "Do you think that he knows about the marriage ?"

"I am sure he does. And he knows where Ellen is."

"Why ?"

"Because I am sure of it."

"That is hardly a reason, my dear Lord Saltire. Don't you think, eh ?"

"Think what ?"

"Think that you are—well," said Lord Hainault, in a sort of desperation, "Are not you, my dear lord, to put it very mildly, generalizing from an insufficient number of facts. I speak with all humility before one of the shrewdest men in Europe ; but don't you think so ?"

"No, I don't," said Lord Saltire.

"I bow," said Lord Hainault. "The chances are ten to one, that you are right, and I am wrong. Did you make the offer ?"

"Yes."

"And did he accept it ?"

"Of course, he didn't. I told you he wouldn't."

"That is strange, is it not ?"

"No," said Lord Saltire.

Lord Hainault laughed, and then Lord Saltire looked up and laughed too. "I like being rude to you, Hainault. You are so solemn."

"Well," said Lord Hainault, with another hearty laugh. "And what are we to do now?"

"Why, wait till William comes back," said Lord Saltire. "We can do nothing till then, my dear boy. God bless you, Hainault. You are a good fellow."

When the old man was left alone, he rose and looked out of the window. The bucks were feeding together close under the windows; and, farther off, under the shadow of the mighty cedars, the does and fawns were standing and lying about lazily, shaking their broad ears, and stamping their feet. Out from the great rhododendron thickets, right and left of the house, the pheasants were beginning to come, to spend the pleasant evening-tide in running to and fro, and scratching at the ant-hills. The rabbits too were running out among the grass, scuttling about busily. The peacock had lit down from the stable roof, and was elegantly picking his way, and dragging his sweeping train among the pheasants and the rabbits; and on the topmost, copper-red, cedar-boughs, some guinea fowl were noisily preparing for roost. Two hundred yards from the window the park seemed to end, for it dipped suddenly down in a precipitous, almost perpendicular slope of turf, three hundred and fifty feet high, towards the river, which you could see winding on for miles through the richly wooded valley; a broad riband of silver, far below. Beyond, wooded hills: on the left, endless folds of pearl-coloured downs; to the right, the town, a fantastic grey and red heap of buildings, lying along from the river, which brimmed full, up to its wharfs and lane ends; and, over it, a lazy cloud of smoke, from which came the gentle booming of golden-toned bells.

Casterton is not a show-place. Lord Hainault has a whim about it. But you may see just such a scene, with variations, of course, from Park-place, or

Hedsor, or Chieftain, or fifty other houses on the king of rivers. I wonder when the tour of the Thames will become fashionable. I have never seen anything like it, in its way. And I have seen a great many things.

Lord Saltire looked out on all this which I have roughly described (for a reason). And, as he looked, he spoke to himself, thus, or nearly so—

"Almost the last of them all; and alone. Not one of them left. Not one. And their sons are feeding their pheasants, and planting their shrubberies still, as we did. And the things that were terrible realities for us, are only printed words for them, which they try to realize, but cannot. The thirty mad long years, through which we stood with our backs to the wall, are ticketed as 'the revolutionary wars,' and put in a pigeon-hole. I wish they would do us justice. We *were* right. Hainault's pheasants prove it. They must pay their twenty million a-year, and thank us that they have got off so easy.

"I wonder what *they* would do, in such a pinch as we had. They seem to be as brave as ever; but I am afraid of their getting too much unbrutalized for another straggle like ours. I suppose I am wrong, for I am getting too old to appreciate new ideas, but I am afraid of our getting too soft. It is a by-gone prejudice, I am afraid. One comfort is, that such a struggle can never come again. If it did, they might have the will to do all that we did, and more, but have they the power? This extension of the suffrage has played the devil, and now they want to extend it farther, the madmen! They'll end by having a House full of Whigs. And then—why, then, I suppose, there'll be nothing but Whigs in the House. That seems to me near about what will happen. Well! well! I was a Whig myself once on a time.

"All gone. Every one of them. And I left on here, in perfect health and preservation, as much an object of wonder to the young ones as a dodo would be to a poultry-fancier. Before the effect of our deeds has been fully felt,

our persons have become strange, and out of date. And yet I, strange to say, don't want to go yet. I want to see that Ravenshoe boy again. Gad ! how I love that boy. He has just Barkham's sweet, gentle, foolish way with him. I determined to make him my heir from the first time I saw him at Ranford, if he turned out well. If I had announced it, everything would have gone right. What an endless series of unlucky accidents that poor boy has had.

"Just like Barkham. The same idle, foolish, lovable creature, with anger for nothing ; only furious, blind indignation for injustice and wrong. I wish he would come back. I am getting weary of waiting.

"I wonder if I shall see Barkham again, just to sit with my arm on his shoulder, as I used to on the terrace in old times. Only for one short half-hour—"

I shall leave off here. I don't want to follow the kind old heathen through his vague speculations about a future state. You see how he had loved his son. You see why he loved Charles. That is all I wished to show you.

"And if Charles don't come back ? By Gad ! I am very much afraid the chances are against it. Well, I suppose, if the poor lad dies, I must leave the money to Welter and his wife, if it is only for the sake of poor Ascot, who was a good fellow. I wonder if we shall ever get to the bottom of this matter about the marriage. I fancy not, unless Charles dies, in which case Ellen will be reinstated by the priest.

"I hope William will make haste back with him. Old fellows like me are apt to go off in a minute. And, if he dies, and I have not time to make a new will, the whole goes to the Crown, which will be a bore. I would sooner Welter had it than that."

Lord Saltire stood looking out of the library window, until the river looked like a chain of crimson pools, stretching westward towards the sinking sun. The room behind him grew dark, and the marble pillars, which divided it in unequal portions, stood like ghosts in the

gloom. He was hidden by the curtain, and presently he heard the door open, and a light footstep stealthily approaching over the Turkey carpet. There was a rustle of a woman's dress, and a moving of books on the centre table, by some hand which evidently feared detection. Lord Saltire stepped from behind his curtain, and confronted Mary Corby.

### CHAPTER LIII.

A VERY STUPID CHAPTER, BUT A VERY IMPORTANT ONE NEVERTHELESS.

"Do not betray me, my lord," said Mary, from out of the gloom.

"I will declare your malpractices to the four winds of heaven, Miss Corby, as soon as I know what they are. Why, why do you come rustling into the room like a mouse in the dark ? Tell me at once what this hole and corner work means."

"I will not, unless you promise not to betray me, Lord Saltire."

"Now just think how foolish you are. How can I possibly make myself particeps of what is evidently a most dark and nefarious business, without knowing beforehand what benefit I am to receive ? You offer me no share of booty ; you offer me no advantage, direct or indirect, in exchange for my silence, except that of being put in possession of facts which it is probably dangerous to know anything about. How can you expect to buy me on such terms as these ?"

"Well, then, I will throw myself on your generosity. I want *Blackwood*. If I can find *Blackwood* now, I shall get a full hour at it to myself while you are all at dinner. Do you know where it is ?"

"Yes," said Lord Saltire.

"Do tell me, please. I do so want to finish a story in it. Please to tell me where it is."

"I won't."

"Why not ? How very unkind. We have been friends eight months now, and you are just beginning to be cross to me. You see how familiarity

breeds contempt ; you used to be so polite."

" I shan't tell you where *Blackwood* is," said Lord Saltire, " because I don't choose. I don't want you to have it. I want you to sit here in the dark and talk to me, instead of reading it."

" I will sit and talk to you in the dark ; only you must not tell ghost stories."

" I want you to sit in the dark," said Lord Saltire, " because I want to be '*vox et præterea nihil*.' You will see why, directly. My dear Mary Corby, I want to have some very serious talk with you. Let us joke no more."

Mary settled herself at once into the arm-chair opposite Lord Saltire, and, resting her cheek on her hand, turned her face towards the empty fire-place. " Now, my dear Lord Saltire," she said, " go on. I think I can anticipate what you are going to talk of."

" You mean about Charles."

" Yes."

" Ah, that is only a part of what I have to say. I want to consult you there, certainly ; but that is but a small part of the business."

" Then I am curious."

" Do you know, then, I am between eighty and ninety years old ? "

" I have heard so, my lord."

" Well then, I think that the voice to which you are now listening will soon be silent for ever ; and—do not take offence—consider it as a dead man's voice, if you will."

" I will listen to it as the voice of a kind loving friend," said Mary. " A friend who has always treated me as a reasonable being and an equal."

" That is true, Mary ; you are so gentle and so clever, that is no wonder. See here ; you have no private fortune."

" I have my profession," said Mary, laughing.

" Yes, but your profession is one in which it is difficult to rise," said Lord Saltire, " and so I have thought it necessary to provide for you in my will. For I must make a new one."

Poor Mary gave a start. The announcement was so utterly unexpected.

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She did not know what to say, or what to think. She had had long night thoughts about poverty, old age, a life in a garret as a needlewoman, and had many a good cry over them, and had never found any remedy for them except saying her prayers, which she always found a perfect specific. And here, all of a sudden, was the question solved ! She would have liked to thank Lord Saltire. She would have liked to kiss his hand ; but words were rather deficient. She tried to keep her tears back, and she in a way succeeded ; then in the honesty of her soul she spoke.

" I will thank you more heartily, my lord, than if I went down on my knees and kissed your feet. All my present has been darkened by a great cloud of old age and poverty in the distance. You have swept that cloud away. Can I say more ? "

" On your life, not another word. I could have overburdened you with wealth, but I have chosen not to do so. Twenty thousand pounds will enable you to live as you have been brought up. Believe an old man when he says that more would be a plague to you."

" Twenty thousand pounds ! "

" Yes. That will bring you in, you will find, about six hundred a-year. Take my word for it, it is quite enough. You will be able to keep your brougham, and all that sort of thing. Believe me, you would not be so happy with more."

" More ! " said Mary quietly. " My lord, look here, and see what you have done. When the children are going to sleep, I sit, and sew, and sing, and, when they are gone to sleep, I still sit, and sew, and think. Then I build my Spanish castles ; but the highest tower of my castle has risen to this—that in my old age I should have ten shillings a-week left me by some one, and be able to keep a canary bird, and have some old woman as pensioner. And now—now—now. Oh ! I'll be quiet in a moment. Don't speak to me for a moment. God is very good."

I hope Lord Saltire enjoyed his snuff. I think that, if he did not, he deserved to. After a pause Mary began again.

"Have I left on you the impression that I am selfish? I am almost afraid I have. Is it not so? I have one favour to ask of you. Will you grant it?"

"Certainly I will."

"On your honour, my Lord."

"On my honour."

"Reduce the sum you have mentioned to one fourth. I have bound you by your honour. Oh, don't make me a great heiress; I am not fit for it."

Lord Saltire said, "Pish! If you say another word, I will leave you ten thousand more. To the deuce with my honour; don't talk nonsense."

"You said you were going to be quiet in a moment," he resumed presently.

"Are you quiet now?"

"Yes, my lord; quiet and happy."

"Are you glad I spoke to you in the dark?"

"Yes."

"You will be more glad that it was in the dark directly. Is Charles Ravenshoe quite the same to you as other men?"

"No," said Mary; "that he most certainly is not. I could have answered that question in the brightest daylight."

"Humph!" said Lord Saltire. "I wish I could see you and him comfortably married, do you know? I hope I speak plain enough. If I don't, perhaps you will be so good as to mention it, and I'll try to speak a little plainer."

"Nay; I quite understand you. I wonder if you will understand me, when I say that such a thing is utterly and totally out of the question."

"I was afraid so. He is a fool. My dear daughter (you must let me call you so), you must contemplate the contingency I have hinted at in the dark. I know that the best way to get a man rejected, is to recommend him; I, therefore, only say, that John Marston loves you with his whole heart and soul, and that he is a *protégé* of mine."

"I am speaking to you as I would to my own father. John Marston asked me to be his wife last Christmas, and I refused him."

"Oh, yes. I knew all about that the same evening. It was the evening after

they were nearly drowned out fishing. Then there is no hope of a reconsideration there?"

"Not the least," said Mary. "My lord, I will never marry."

"I have not distressed you."

"Certainly not. You have a right to speak as you have. I am not a silly hysterical girl either, that I cannot talk on such subjects without affectation. But I will never marry; I will be an old maid. I will write novels, or something of that sort. I will not even marry Captain Archer, charm he never so wisely."

"Captain Archer! Who on earth is Captain Archer?"

"Don't you know Captain Archer, my lord?" replied Mary, laughing heartily, but ending her laugh with a short sob. "Avast heaving! Bear a hand, my hearties, and let us light this taper. I think you ought to read his letter. He is the man who swam with me out of the cruel sea, when the *Warren Hastings* went down. That is who he is, Lord Saltire." And at this point, little Mary, thoroughly unhinged by this strange conversation, broke down, and began crying her eyes out, and, putting a letter into his hand, rose to leave the room.

He held the door open for her. "My dear Mary," he said, "if I have been coarse or rude, you must try to forgive me."

"Your straightforward kindness," she said, "is less confusing than the most delicate finesse." And so she went.

Captain Archer is one of the very best men I know. If you and I, reader, continue our acquaintance, you will soon know more of him than you have been able to gather from the pages of *Ravenshoe*. He was in person perhaps the grandest and handsomest fellow you ever saw. He was gentle, brave, and courteous. In short, the best example I have ever seen of the best class of sailor. In heart he was born a gentleman, and he had carefully made himself a gentleman in manners. Neither from his dress, which was always scrupulously neat and in good taste, nor from his

conversation, would you guess that he was a sailor, unless in a very select circle, where he would, if he thought it pleased or amused, talk salt water by the yard. The reason why he had written to Mary in the following style was, that he knew she loved it, and he wished to make her laugh. Lord Saltire set him down for a mad seaman, and nothing more. You will see that he had so thoroughly obscured what he meant to say that he left Mary with the very natural impression that he was going to propose to her.

He had done it, he said, from Port Philip Heads, in sixty-four days at last, in consequence of one of his young gentlemen (merchant midshipmen) having stole a black cat in Flinder's-lane, and brought her aboard. He had caught the westerly wind off the Leuwin and carried down to 62°, through the ice, and round the Horn, where he had met a cyclone, by special appointment, and carried the outside edge of it past the Auroras. That during this time it had blown so hard, that it was necessary for three midshipmen to be on deck with him night and day, to hold his hair on. That, getting too near the centre, he had found it necessary to lay her to, which he had successfully done, by tying one of his false collars in the fore weather-rigging. And so on. Giving an absurd account of his whole voyage, evidently with the intention of making her laugh.

He concluded thus : "And now, my dear Mary, I am going to surprise you. I am getting rich, and I am thinking of getting married. Have you ever thought of such a thing ? Your present dependence must be irksome. Begin to contemplate a change to a happier and freer mode of life. I will explain more fully when I come to you. I shall have much to tell you which will surprise you ; but you know I love you, and only study your happiness. When the first pang of breaking off old associations is over, the new life, to such a quiet spirit as yours, becomes at first bearable, then happy. A past is soon created. Think of what I have said before I come to you. Your future, my dear, is not a very bright one. It is a

source of great anxiety to me, who love you so dearly—you little know how dearly."

I appeal to any young lady to say whether or no dear Mary was to blame if she thought good, blundering Archer, was going to propose to her. If they give it against her, and declare that there is nothing in the above letter leading to such a conclusion, I can only say that Lord Saltire went with her and with me, and regarded the letter as written preparatory to a proposal. Archer's dismay, when we afterwards let him know this, was delightful to behold. His wife was put in possession of the fact, by some one who shall be nameless, and I have heard that jolly soul use her information against him in the most telling manner on critical occasions.

But, before Captain Archer came, there came a letter from William, from Varna, announcing Charles's death of cholera. There are melancholy scenes, more than enough, in this book, and alas ! one more to come ; so I may spare you the description of their woe at the intelligence, which we know to be false. The letter was closely followed by William himself, who showed them the grass from his grave. This helped to confirm their impression of its truth, however unreasonable. Lord Saltire had a correspondence with the Horse Guards, long and windy, which resulted, after months, in discovering that no man had enlisted in the 140th under the name of Horton. This proved nothing, for Charles might have enlisted under a false name, and yet might have been known by his real name to an intimate comrade.

Lord Saltire wrote to General Mainwaring. But, by the time his letter reached him, that had happened which made it easy for a fool to count on his fingers the number of men left in the 140th. Among the dead or among the living, no signs of Charles Ravenshoe.

General Mainwaring was, as we all know, wounded on Cathcart's Hill, and came home. The news which he brought about the doings of the 140th we shall have from first hand. But he gave them no hope about Charles.

Lord Saltire and General Mainwaring had a long interview, and a long consultation. Lord Hainault and the General witnessed his will. There were some legacies to servants; twenty thousand pounds to Miss Corby; ten thousand to John Marston; fifty thousand pounds to Lady Ascot; and the rest, amounting in one way or another, to nearly four hundred thousand pounds, was left to Lord Ascot (our old acquaintance, Lord Welter) and his heirs for ever.

There was another clause in the will, carefully worded—carefully guarded about by every legal fence which could be erected by law, and by money to buy that law—to the effect that, if Charles should reappear, he was to come into a fortune of eighty thousand pounds, funded property.

Now please to mark this. Lord Ascot was informed by General Mainwaring that, the death of Charles Ravenshoe being determined on as being a fact, Lord Saltire had made his will in his (Lord Ascot's) favour. I pray you to remember this. Lord Ascot knew no particulars, but only that the will was in his favour. If you do not keep this

in mind, it would be just as well if there had been no Lord Welter at all in the story.

Ravenshoe and its poor twelve thousand a-year begin to sink into insignificance, you see. But still we must attend to it. How did Charles's death affect Mackworth? Rather favourably. The property could not come into the hands of a Protestant now. William was a staunch Catholic, though rebellious and disagreeable. If anything happened to him, why, then there was Ellen to be produced. Things might have been better, certainly, but they were decidedly improved by that young cub's death, and by the cessation of all search for the marriage register. And so on. If you care to waste time on it, you may think it all through for yourselves, as did not Father Mackworth.

And I'll tell you why. Father Mackworth had had a stroke of paralysis, as men will have, who lead, as he did, a life of worry and excitement, without taking proper nourishment; and he was lying, half idiotic, in the priest's tower at Ravenshoe.

*To be continued.*

#### THE URAL MOUNTAINS: A NEW PARLOUR GAME

THE Romans in the time of Horatius, or in the time of Lord Macaulay, used to amuse themselves in the winter evenings by roasting chestnuts, telling stories from modern history, and broiling pieces of kid's flesh. Our present civilization debuts part of these operations to the cook; and it is not generally found that historic narratives are sufficiently vivid in their interest to amuse ladies and gentlemen from dinner to bed-time continuously. So little is this the case, that in quest of the playful they weary themselves to death with games of versification, or make believe to be pleased with the slow torture of "proverbs." Games of cards are, of course, an unfailing resource; and some space has lately been given in these pages to the explanation of certain varieties of play

hitherto but partially known. Still, a gap remains to be filled in the entertainments of an English evening; and this article will be an attempt to fill it by the suggestion of a parlour game not as yet popular in this country, and not depending on combinations of kings and knaves for its success.

The "Ural Mountains" is a game which has been played certainly for more than a hundred years among a large tribe of Kafirs in South Africa. The Orula race is one of the most intelligent of the warlike nations situated at the back of the great Frang-Li chain in latitude  $35^{\circ} 31' S.$ ; and they have long been known as the originators of that peculiar form of cross-bow which was so fatal to our troops in the expedition of 1853. Evening after evening, in time

of peace, the chiefs of the tribe meet and refresh themselves after the fatigues of the hunt by feasting, and laughter, and play. The common people are not allowed to join, or, indeed, to play at this particular game at all. Sir Frederick Manson, the military secretary to the above-mentioned expedition, resided for a few weeks with the tribe after the conclusion of peace, and learnt the rudiments of the sport. He was so much impressed by its lively nature that he explained it to the passengers and crew of the ship in which he returned to England, and the name Ural Mountains is that which the sailors spontaneously produced from a pardonable confusion in their ungeographical minds between the great Russian range and the Orula tribe from whom the game had been brought. Whether the Royal Navy has been inoculated with it, or has suffered it to drop into forgetfulness, we are unable to say; but an account of the principles of the game was found among Sir Frederick's papers after his death; and it is by his nephew's permission that we publish it, in a form only slightly adapted to suit a more orderly society of Europeans.

To play at "Ural Mountains," appoint one of the party judge, and divide the rest into two sides, who must sit facing one another. Each side selects a captain. Each side should be not less than two in number, and not greater than six or eight. About four or five is the best number; and the sides need not be exactly equal. We will call them, for the sake of clearness, *A*, *B*, *C*, *D*, &c., and *a*, *b*, *c*, *d*, &c., *A* and *a* being the captains. The game is begun by the captains, one of whom accuses the other of some imaginary crime,—the more absurd the better. He is then subject to an examination from his antagonist as to the circumstances of the charge, his means of knowing it, the supposed motives, and anything in heaven or earth that may be considered to be in any way connected with it. To every question asked he *must* give a distinct answer. He is not allowed not to know; and, the more impossible and grandly false the answers are, the more amusing

will be the result. As soon as the accused captain has asked as many questions as he thinks fit, another of the side takes it up and continues the examination, trying if possible to shake the evidence and obtain a self-contradiction; and all in turn ask at least one question, and more if they wish. Then the accuser who is being examined passes on his part to the next in order, and he is in his turn examined. He is *considered identical with* his leader for purposes of examination, may be asked a second time the same questions, or others, and must give answers not inconsistent with those given before. Of course he may launch out into new, startling statements, which his leader must accept as part of the evidence. Then the next takes his part, and the next, and so throughout; the whole side being *considered as one man*, and answering about their knowledge of the crimes, and all questions that are asked, in the first person, and never contradicting themselves—or, it would be more proper to say, himself. If there is a discrepancy in the evidence given, the cross-examining side may call out that it is a "blot," and appeal to the judge, who allows one, two, or three, to their side, according to the grossness of the blunder; the blundering person, however, may endeavour to explain away his inconsistency, and if he succeeds cleverly, the judge may mitigate his decision. The side under examination may not speak to one another while it lasts. A limit of time should be settled beforehand; if there are four or five on a side, a quarter of an hour is about enough for the examination. When once everyone has asked at least one question, the fire of interrogatory becomes general, and any one of the accused may ask any one of the accusers any questions; only one, however, must speak at a time, and the captain commands his side in questions of prior right to cross-examine. When the time is up, the examination is reversed: the original accused captain has to declare an *alibi*, and state where he was, and what doing, at the time; or show in some way that the charge is impossible. He is then

examined, and similarly all the rest of his side ; all being considered again as the same person, each attending carefully to what is said, each bound to answer definitely every question asked, and careful to avoid "blots." When blots are made, the opposite side again appeal, and score as many to their side, up to three, as the judge appoints. Whichever side at the end has made fewest blots wins. The chief amusement of the game will be found to depend, if those playing have any humour or imagination, on the strange falsehood of the replies given, the ingenuity requisite to sustain them, and the curious web of self-consistent impossibilities which will have to be invented to prop up a statement ; and again, on the cleverness which will frequently be employed to palliate or explain away a blot.

We will now imagine an example. *A* accuses *a* of murdering his page, stealing a spoon at dinner, smoking in the railway, lying in bed till twelve, or anything whatever. Suppose, for instance, he declares that *a* murdered his "buttons." In answer to questions, he says, that *a* did it last night, in the coal-cellars, at 11.25 P.M. ; he knows the time, because he heard a scream at that time by the Horse Guards clock, which he saw by moonlight, across two miles of houses, with a telescope, bought in Cochin-China. When asked by *a* why he, *a*, murdered the boy, *A* replies that it was partly from general blood-thirstiness, partly for the sake of the buttons.

*a.* What did I do with the buttons ?  
*A.* Sold them.

*a.* To whom ? *A.* To the Emperor of France.

*a.* When ? what for ? *A.* At seven this morning—to make bullets of.

*a.* Who told you ? *A.* The Emperor himself.

*a.* When did you see him ?—&c.  
Or again, when *b* is examining :—

*b.* Where was the body found ? *A.* In the canal.

*b.* How do you know I killed him in the coal-cellars ? *A.* The knife was found there.

*b.* Who found it ? *A.* I did.

*b.* How did you get into my coal-cellar ? *A.* Crept in.

*b.* What for ? *A.* To steal coals.—&c.  
Presently, in the course of the game :—

*c.* (asks *D*). Did he struggle much when I killed him ? *D.* No.

*c.* What did he say ? *D.* "Take care of my wife and children."

*c.* (asks *E*). How did they identify the body ? *E* (remembering that the buttons had been cut off). Because your knife was found sticking in him.

All *a*'s side at once shout for a blot, since *E* had said before (or *A*, who is identical with *E*, had said) that he himself had found the knife in the coal-cellars. *E* justifies himself by urging that *a* had used two knives ; but the judge thinks the excuse poor, and awards a blot for three. The last answer is disallowed.

Possibly, again, *b* may ascertain from *C* that the struggle lasted three-quarters of an hour in solemn silence ; and then may appeal for a blot, because *D* had mentioned his dying words. *C* gets out of it by saying that this was when the struggle was over, and the judge lets it pass. Again, perhaps, *a* asks *B* by what light he killed him ; and is told that it was by a moderator lamp which he took down with him. *B* next replies that he took it down at 11.25, priding himself on the accuracy with which he has followed *A*'s statement. A blot is called for, because *A* said that after the long dying struggle the scream was heard at 11.25 by the Horse Guards. *B* explains that, on this particular night, the Horse Guards clock had been stopped by order of the Commander-in-Chief, because his youngest child had got the measles. The judge allows a blot for one.

The above suggestions will probably be enough to explain the game. They, no doubt, wear a childish appearance in print ; but almost all the humorous fancy which is the zest of such a game must appear childish if coldly written down. After the quarter of an hour, *A* sets up his *alibi*, saying, for example, that he was at his club—over the fire—reading—with Jones and Brown—reading Froude's History—the tenth volume. *A* or *B* or *C* may ask *a* or *b*, how

it was that they were doing so, when ten volumes are not yet published? The reply will be, that they are published, the day before yesterday, and so on; falsehood being, in "Ural Mountains," rather a virtue than a vice.

Having explained the principles of the game, it might now be sufficient to commend it to an enlightened public; but for the sake of candour a postscript appears necessary. The account above given of the origin of the game is purely and utterly fabulous. There is no Orula tribe of Kafirs; there never was such a person as Sir Frederick Manson; there was no British expedition in 1853. The game has not been played for a hundred years; it has only been played once since the Creation. It originated in the brain of two ordinary persons, the writer of this article and another, who are not foreign travellers nor African barbarians, but individuals chiefly occupied in calm study, and more given, generally speaking, to work than to play. Observing with pain the distressed state of our country for the want of quiet, social amusement, we determined to remedy the defect, and invent the Game of the Future. We set to work in a truly workmanlike manner. As Edgar Poe declared that he had composed the "Raven" by working from first principles, building up a gradual structure on mere naked theory, so we decided that we would do. We meditated profoundly on the subject of games, and laid down, one by one, certain canons for our guidance, adding each new one as it suggested itself, and shaping our ideas of the game according to them. The following is—we are now speaking *bond fide*—the order in which they occurred to us, as we wrote them down at the time; and when the "Ural Mountains" has been established for centuries as the national English amusement, the statement will no doubt possess an historical interest. In the first place we settled that we would exclude physical materials, in order to make the game universal. This was Canon 1. Canon 2 was, that there must be two sides, as in all the really good games. Canon 3. Some of the persons playing must have more share

in the game than others. The reasons of this are many and obvious. 4. There must be a *score* of some kind kept. These canons were obtained, it may be observed, chiefly by an induction, separation, and collection of all the best points of other games, partly from consideration of human nature. 5. There ought to be, in the Ideal Game, no distinction of sexes, which always breeds some awkwardness, or some vulgarity. 6. There must be no writing—no poetry—no display of knowledge. 7. On the whole we decided, this being a social game, that question and answer ought to be brought in. But the game must not depend on mere words. 8. Chance must be an element. 9. It will, probably, be most successful if some relation of life is introduced, by way of parody or otherwise; we thought of three, viz. that of king and court, army and generals, judge and jury. 10. Perhaps, let it have some hard names, as in "squails;" though this is almost unworthy of the Game of the Future. 11. There should be progress in the game by a series of separate efforts, a distinct advance, step by step; perhaps alternately. 12. There should be something in it involving the possibility of dispute. 13. The question arises now, How is each side to add one to its score? Two methods chiefly suggested themselves; by guessing some puzzle right, or by some fault, e.g. self-contradiction, of the other side. We thought the latter the best. 14. There must be not only the play of fancy, but some absurdity and incongruity as well.

Such were the laws which we conceived necessary for a perfect game. They were distinctly laid down, in the above order, before the game above-described shaped itself finally, after some days of consideration. It is now offered to England. The Anglo-Saxon race will receive it with eagerness, and will hand it down as an heir-loom to ages. If it should indeed fail, it will only be a fresh proof of the weakness of the deductive method; if it succeed, the world will not be slow to recognize the Creative Might of Genius.

E. E. B.  
H. S.

## THE RISE AND PROGRESS OF TRIAL BY JURY IN BRITAIN.

BY THE REV. W. BARNES,  
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TRIAL by Jury seems to have been a true and most early law of the social life of the Britons, and therefore of Britain, and to have been practised by the Celtic people, as by many other kindreds of men, in their times of free tribeship.

In the earliest forms of men-gatherings, a father was the law-head of his house, and therefore the law-head of his sons, and even of their children, and of all the souls—men, women, children, and war-slaves—who were under his mind or protection. Thence were formed patriarchal tribes, and afterwards greater chief-led tribes, which our forefathers in early times called *cín*, the head of which was the *cining* (our *King* or *kin-head*), as the head of the Arab tribe is the Shaikh ; of the Tartar, the Khan ; of the African, the Gerad, Sultan, and others. That of the Britons was called the Pencenedl, or tribe-head ; and that of the Israelites the Goel, or Goel-hadum, the redeemer of blood.

In this kind of tribeship the more usual law is that, if a man of a tribe A slay a man of the tribe B, there must be a clearing by the tribe B of the blood of their slain tribesman, and that, until there be such a clearing of his blood, it lingers as a stain on his tribe or himself. The Arabic word "thar" for the taking of blood for blood, means a *cleansing*; and in the *OEdipus Tyrannus*, l. 313, there was a stain (*μίασμα*) from a slain man ; and (line 255) his murder ought not to be left uncleansed (*ἀκάθαρπτος*).

The rudest form of the law of blood-clearing is, that any man of the tribe B may slay any man of the tribe A ; which, I believe, is the law of blood among the tribes of Australia.

This may seem to us a very rude and

unfair law, as we should rather hold to the more righteous one of the Judge of all the earth, that the soul that sinneth it should die. But yet, in practice if not in law, great tribes, such as highly cultivated nations, will sometimes act on the barbarous rule ; for it was said by some men, a little before the taking of Pekin, that the English would show little quarter to the Chinese, owing to their putting to death some of the English prisoners who had fallen into their hands ; or, to put it more in the form of the barbarous rule, that, as some Chinese had slain some Englishmen, so other Englishmen would therefore slay other Chinese—a form of blood-clearing which, as long as there are wars, will be, and very likely must be, taken up, whether at Pekin, at the Peiho, in India, or elsewhere.

The next step in the law of blood-clearing is that the man-slayer shall be slain only by a kinsman of the slain, as was the rule of the Goel, or redeemer of blood by the Divine law, which declared that the sinning man only should die, and should die only by the protector of the lost life, and that the slayer of his neighbour unawares should be shielded in a city of refuge.

The next state of the law of blood is a usage that, for the sparing of blood-shed, a compensation in goods shall be given by the kin of the slayer to the kindred of the slain ; and then a setting forth, such as there was in the Saxon-English and British laws, of the law-worth of man's life or limb, which life-worth or limbworth was called by the Britons *galána*s, and by the English *geald*.

While tribes are asunder and even rather free of each other, the law seems to try, with greater or less might, to obtain

blood-money, instead of blood itself. A writer on some African tribes says:—“ In most cases war arises from blood-feuds, when a member of one clan kills the subject of another, and will not pay the recognized valuation (geald) of the party injured, or allow himself to be given up to the vengeance of the family which has sustained the loss. In such cases as these whole tribes voluntarily march out to avenge the deed by forcibly taking as many cattle from the aggressor as the market valuation may amount to;” so that even this violence is a measured one.

In Arabia, “ If a man commit homicide, the Cadi endeavours to prevail upon the family of the victim to accept a compensation in money or in kind (geald), the amount being regulated according to custom in different tribes,” as it was regulated in Britain by law. Should the offer of blood-money be refused, the “ thar ” comes into operation ; and any person within the “ khoms,” or the fifth degree of blood of the homicide, may be legally killed by any one within the same degree of consanguinity to the victim. The law holds between distinct tribes as well as between families. Hence an Arab is mostly unwilling to tell a stranger his own name, or that of his tribe or his father, lest there should be “ thar ” between them ; and in most encampments there are found refugees, who have left their tribe on account of some homicide. In case, after a murder, a man within the “ thar ” takes to flight, the law allows him a scope of three days and four hours from the hands of any pursuer ; and, if such a man does not embody himself in another tribe, he will sometimes wander from tent to tent, or even rove through towns and villages, with a chain round his neck, and in rags, begging contributions to make up the blood-money.

When kins or tribes are gathered into a kingdom, the kingdom’s law will begin to restrain the law of blood-clearing, which is then taken up by the State, or made to yield to the law of

geald. Thus, among the Israelites the early blood-law was restrained by the Divine law of the Goolah, or redeemership of blood.

The Goel, or redeemer of blood (a type of Christ), was the eldest of the firstborn sons of the kin, and it belonged to his office (1.) to redeem lands which had been alienated from the kin. (See Ruth, ii. and iv.) (2.) to redeem his kinsmen from slavery ; and (3.) to right their wrongs, and take the life of any shedder of their life-blood.

There was not under the Mosaic law any hired executioner, such as the man whom we call by the horrid name of Jack Ketch—which Ketch means *choker*—but the law gave over the murderer to the Goel of the dead, as it gives him into the hands of our sheriff. This should be borne in mind by readers of the Bible, since it tells of many takings of life by Goels, in such a way that, if the Goolah be not understood, the Goels will seem to be acting only with bloodthirstiness ; whereas they were fulfilling an office which they could no more shun than a sheriff of a county can shun his sad office on the scaffold.

We have a markworthy case of this kind in Judges, viii. 18, &c., where Gideon takes Zeba and Zalmunna, who had slain his brothers at Tabor, and said to them, “ If ye had saved them alive I would not slay you,” and seemed sorry that they must die. “ And he said unto Jether his *firstborn*, Up, and slay them. But the youth drew not his sword : for he feared, because he was yet a youth.” Now, why did Gideon, in the full strength of his manhood, defer the office of justice to his little boy ? Because that boy was the Goel of his kin, and as such the protector even of his own father. He was his father’s *firstborn* ; and that Gideon could not be a Goel is clear from vi. 15, where he says, “ I am the *least* (the small one or youngest) in my father’s house.”

From the law of Goolah we can also understand how it was that in many cases fathers were as nobodies as law guardians of their own children ; how it was that so little was made of Rebek-

kah's father Bethuel, and how high over him was holden her brother Laban, in the case of her marriage ; and why Jacob (Gen. c. xxxiii.), who was not a Goel, on hearing of the dishonouring of Dinah, held his peace until his sons, one of whom was a first-born, came home ; and why the sons of Jacob, not he himself, answered Shechem and Hamor, and told them that in such and such cases they would give their daughters unto them, or otherwise they would take their daughter and they would be gone ; and why Reuben (a first-born), finding that Joseph was not in the pit, rent his clothes and uttered that wail, which is in Hebrew so touching from its sounds, "The child is not, and I, whither shall I go ?"

Having thus perceived the steps by which the law at last settled the giving of compensation in goods, for blood, we will next inquire who were to pay the geald or galánas. With the Britons the galánas was to be paid by the kinsmen of the slayer or wrong-doer, out to the fifth degree of kindred.

For our authorities as to ancient British law we have the Law Triads, and the so-called Laws of Hywel Dda, which are really the Laws of Hywel Dda and others (Cyfreithiow Hywel Dda ac eraill). The laws state that one of those others was Moelmud, who lived before the birth of Christ, and was the first who made good laws in this island, and that his laws had holden down to the time of Hywel Dda, who changed some of the old ones and made others—though the new ones, as is clear from the older law triads, could not have been great constitutional ones. It has been the fashion to doubt the truth of the old Welsh writings ; but I can only say that the more I can understand them the brighter they make to me the truth of other ancient writings on Britain, Latin or English.

Now there is a markworthy coincidence in the law of blood-clearing with the Britons, as it is given in the Law Triads and the Laws of Hywel Dda, and the law of the same among the Arabs. With the Arabs any man within the

khomse (an Arabic word meaning *f/ūl*), or fifth degree of kindred of the slayer, may be killed for his crime ; whence we may infer that a man of wider kindred than the fifth is bloodguiltless. So the British laws ask, "Is there a case in which a father is bound to pay galánas and his son is not ?" and the answer is, (Oes. Gorchaw) "Yes, a Gorchaw ;" that is, a fifth-blooded kinsman, "is bound to pay galánas and his son is not."

We need not hence believe that the Britons got their law of the Gorchaw from that of the khomse of the East ; for, if we were to hold their practice of blood-clearing, we should most likely learn by experience that it ought not to reach beyond the fifth blood.

We now come to another important inquiry. How was it to be tried whether a reputed slayer was or was not guilty of the blood which was required at his hands, and whether, therefore, his kin was bound to pay his galánas or not ? A charge is not always a conviction, and a belief may not be truth.

Among the Britons the accusation, whether it were one of murder, of debt, of theft, or of other wrong, was to be tried by the reputed wrong-doer's kinsmen, those who were bound to right his wrongs—wrongs done and wrongs borne ; and *this was the rise of our Jury*.

"If a debtor," says British law, "shall have denied a bondsman (mach), let him be cleared by the oath of himself and six men, the nearest to his own state (nesaf ei werth), his peers, four from his father's kindred, and two of his mother's." Elsewhere, "They must be of the same kindred to the debtor as those who would take or pay his galánas."

If a man denied a contract he was to be cleared in the same way, by the oaths of four men of his father's kin and two of his mother's kin ; and so strict was the law that a man was to be tried by his kinsmen or peers, that it declares that, if a plaintiff should challenge one of these oathsmen, no ground of out-casting him would be good but that of a want of kindred (namyn na hanfo o'i genedl, unless the not being of his kin)—

the very ground on which, with us, a juryman could not be challenged, though by British law even seven brothers of the accused might be on the jury.

One of the law triads says the case of a son imputed to a man—false affiliation—may be denied three ways:—

1. By the reputed father.
2. If he were dead, by the pence ned.
3. If there were then none, by fifty men of the kin.

Another triad, which speaks of false affiliation, gives us some insight into a kind of *habeas corpus* law, which the Britons then held.

"The three plagues of a kin are:—  
"1. To breed up the child of a lord" (whatever it was, I know not).

"2. To bring a child falsely to a kin.  
"3. Gwarchadw pen raith"—to keep in custody the head-swearer, whom I take to be the man clearing himself by the oaths of his kin, who swore that they believed to be true the oath of the man at the bar.

In this case, the verdict was to be, as with us, that of the whole jury, and not of a part of them; for the law declares, "If one of the oathsman will 'not swear this oath, the oaths of the 'others are of no weight.'

But there was another lower oath, in which two-thirds of the jury would give a verdict, that the oathsman believed to be likely (not true) that which the accused had sworn.

For suits as to goods for the value of 20 ceiniaug (silver pennies), there should be five oathsman;

60 ceiniang . . . . .	12
120 . . . . .	24
A pound . . . . .	48
For less than a man-load .	3
For a horse-load . . . . .	10

For theft, the oathsman were to be, as with us, twelve—six men of mark, and six men of no mark.

The Saxon-English law of wrongs, both of life and goods, was like that of the Britons, save that the oaths-men were not needfully of a man's kindred, though they were to be his fellow-hundreds-men, bound to stand by his rights and wrongs. The reason of

the difference between the British and the English law is clear. The English settled here, as our people now settle in Australia—men from sundry parts of their fatherland, side by side; and therefore they could not have kept up tribeship, and they took, instead of it, their boroughship—which boroughship consisted in a making-up of social tribes on neighbourhood, instead of kindred on blood.

"They should reckon," says English law, "ten men together (a tithe), "and the eldest should hold the nine to "their duties;" and they were to keep the geald's money, and know what they paid and took for geald.

And yet the Saxon-English held, as nearly as they could, to the kindred-geald, since, if a man should accuse another, and say he was homicide, he must clear himself with his kindred (mid his magan), who must bear or make good his wrong. So, if a slayer fled from the land, his kinsmen were to pay half his blood-money; and, if a man fought with another, and killed him, his mother's kin paid one-third of his geald, his hundreds-men one-third, and for a third he fled.

The number of oathsman was, in many cases of life, the same with the Old English as it is with us, and was with the Britons—twelve; and they held the rule that a man was to be tried by his peers. A thane accused of manslaughter must clear himself with twelve king's thanes; or, if he were a thane of lower rank than a king's thane, he must clear himself with eleven of his equals (his gelicene, his likes, answering to the wording of the British law, *nesaf ei werth*, nearest to his own state), and with one king's thane. Now, was this system of wergeald, and trial by jury, the work of the English-Saxons, either here or in the North? Or was it an earlier law of the Britons, taken up from them by the Saxon-English in Britain? We do not find the law of jury with wergeald in the old laws of our elder brethren, the Frisians, from whom our forefathers came; and that the Britons did not take it from the

English, we may cite as one witness among many, Innes's "Scotland in the Middle Ages." In explaining the old Scotch laws of the rating of goods for the sake of galánas, or geald, and of a man's clearing of himself by the oaths-men, who were bound to swear for him that they believed him guilty, Mr. Innes tells us they were called the laws of the "Brets and Scots"—the Brets being the North Britons or Picts, and the Scots the other Celtic race, the Highlanders or Irish. He adds that these laws were proscribed as barbarous by Edward I., in 1305. Mr. Innes observes that there is nothing said in these laws of witnesses; but, by the laws of Hywel Dda, oaths-men might be witnesses.

In the run of time, the tribeship of the Britons was broken up, and the bonds of English boroughship, of hundreds, and tithings, were loosened; and the kindred oaths-men of the Welsh, and of the Brets and Scots, and of the English fellowship, became a panel of twelve freemen. Formerly there was a panel, as there must have been with the Britons, for every single case; but, by the 3 Geo. II., it was enacted that there should be one panel, of from forty-eight to seventy-two men, for all cases of an assize.

Anciently, the English law kept so near to the British that the jury must be fellow-hundreds-men of the accused. But, under Edward III., six, and then, under Elizabeth, only two, were to be of his hundred; and, lastly, under George II., all of them might be from other hundreds than that of the prisoner on trial.

The assessment of the geald on the hundred was brought down to late times. We may find a hint of it in old editions of the book of that everlasting old master of commercial arithmetic, Walkingame, who, telling his disciples that a robbery has been committed on the highway, and that an assessment for the geald has been made on the hundred, requires them, by way of exercise, to assign, by a given scale, the shares of the geald to the several towns, parishes, and hamlets.

Now, what is the difference between our juries, and those of Britain in early times of the Britons and Saxon-English? The difference is that *their* juries were for the clearing of a man, and not for the finding him guilty; for, *unless he could clear himself by their oaths, he was guilty by the accusation.* All the oaths-men were of his kin, or his boroughship; and, if all of them, not most of them, could not clear him by their verdict, then he was guilty. Our juries, on the other hand, seem called either to clear or to convict a man, and are not to be of his kin or kith. Yet, in doctrine, if not in practice, we hold so much of the law of kinship as to allow that a man should be tried by his peers, and that, if a foreigner be tried by our laws, he should have a *medietas linguae*, a half of his speech, or six of the jury foreigners.

Whatever changes we have made in trial by jury, and in whatever cases we have cast it aside, we shall most likely be ready to believe that we have done wisely; and, at all events, the dust of the Britons that sleeps on our hills, wherever the farmer or the antiquary will leave it alone, cannot rise to gainsay us. It seems, however, to have been a good, as it was a great, maxim of their law, that a man should not be tried by his foes, or by men of a hostile class. To this doctrine we shall most likely all assent. What hope is there for lambs as tried by the wolf; or, if the cat had wings, what would become of the sparrows? It may be thought that the kindred of a man among the Britons would always clear him for their own sakes; and yet we hold, with them, that a man should be tried by his peers. Who are meant by his peers? Who were meant by a man's peers with the Britons and Saxon-English, we see by their laws. A Welshman was to be tried by his kindred, and an Englishman with his likes (mid his gelicina); and both by those men who would have to take amends or make amends for their wrongs. This form of trial answered for hundreds of years; and, if it be said that those

men revered an oath more than we do, I am as sorry as unwilling to allow it. Alas! for our civilization, ay, and our religion, if such was the truth! I believe the Britons and our forefathers thought—as, with all our crimes and perjuries, we should most likely believe—that there will be at least one good conscience among twelve men; and, as a man could not be cleared but by a verdict of the whole jury, the whole jury were found to do justice. And, if an accused man was convicted of a crime by twelve of his own kin, how trustworthily fair was his conviction; while a verdict of guiltiness from a jury of foes, or of a foe-class, would rarely be received as justice by a man's kindred or friends.

The rule, therefore, that a man should be tried by his peers, as it is a rule of English common law, is still a good one, and our safeguard. No man should be tried by a jury of the class against whom alone he can do his crime. If, in America, for example, a man under an accusation of helping a slave to escape, is tried by a jury of slave-owners, he is not tried by the common law of our race. So neither would it be by the mind of English law that a man, for an uproar in a strike, should be tried by a jury of masters in his craft, or that a master, for a like breach of the peace, should be tried by twelve of his men on strike.

A nobleman is not to be tried by commoners. Good! and a commoner ought not to be tried by noblemen. And yet, if a noble magistrate on the bench convicts a man without a jury, as he is jury as well as judge, he so far violates the common law of the land. If it be answered that a man of higher rank ought not to be tried by a lower one, but that a man of low state should be tried by his betters, I answer that such is not the mind of English common law; and, as far as it may be statute law, it seems to me to be a stroke for oligarchy or despotism. The cry of the Britons is, let a man be tried by men (*nesaf ei werth*), nearest his own state, and of old English law, by (his gelicensa) his likes.

Holding this view of English law,

I may be told, as I have already been told, that I must allow that robbers or thieves ought to be tried by a jury of robbers or thieves. No such thing. Robbers and thieves are not a lawful class of the community. Their very being as such a class is forbidden by the law; and we can never impute to the law a willingness that a man should be tried by a class to which it forbids the very act of being.

The peace-men do not seem to me to be unreasonable in their wish to have the acts of kings or States tried by a jury of kings or States as arbitrators. If we could get a good and fully received law of nations by which any tyrant or wrong-doer among his neighbours should be bound to abide by the award of six, if not twelve, good sovereigns, or "his likes," it seems that it would be the height of civilization, though, even then, as a man convicted of crime is not fit for a juryman, so a king whose tyranny has bred an insurrection in his own land might not be qualified for the jury-box of crowned heads.

Some have thought that our juries are taken from men of too little school knowledge, if not of too low an understanding. I am not of that opinion. The jury are judges of fact, and not of law; and plain men of common understanding are not often very bad judges of such facts as come into the trials of their own peers. Their ignorance may be only of the technicalities of law forms and law words; and charges of incompetency may be made against a jury by a single writer in a newspaper, whose one opinion is to be taken as of more weight than that of twelve hearers and watchers of the prisoners, of the witnesses, and of the whole trial.

Such a man, moreover, may think, in his eagerness to get a so-deemed bad man out of the community, that the office of a jury is to convict a prisoner; whereas the old, and, I think, the true view of their office seems to have been, that the man would be convicted by the accusation, unless the jury could, with a good conscience, clear him from it. The

British law cries of the accused and the accusation, let him *deny* it (*gwadded*) with so many men ; and the voice of the Saxon-English is, "Let him clear, or cleanse himself (becaenue hine), if he can," and again, "Let him clear himself" (ladige hine). And the judge, even yet, tells the jury that, if they have any doubt of the prisoner's guilt, they are to give him the benefit of it. The question, therefore, for a juryman seems to be, "Can I with a good conscience clear the prisoner?" not, "Can I fairly convict him?" It is better that a guilty man should once in a long time be wrongfully freed, than that every man's life or freedom should be at the mercy of any tool of a faction.

Magna Charta declares that no free man shall be taken or imprisoned unless by a lawful judgment of his peers, or by the law of the land. These words seem clear enough, and yet they are to me very far from clear ; for, if a man is not to be imprisoned without a trial by his peers, Magna Charta is lost in our imprisonments from the juryless courts of magistracy. We have here no Magna Charta, and no such safeguard of our freedom ; but we have King John again in all his might. "Ay," it may be answered, "but Magna Charta says that a man is to be tried by the judgment of his peers, or the law of the land ; and now, by the statute law, which is the law of the land, a man may be imprisoned without trial by jury." Well then, Magna Charta was not *tam Magna* after all ; for it only declared that a man should not be imprisoned without trial by his peers, until he should be so imprisoned. But does "the law of the land," in Magna Charta, mean statute-law, or the common law of England's freedom? That is what I want to know.

In the code of British law there certainly was statute-law which was not called the law of the land. Hywel's code is in three parts :—

1. Laws of the court.
2. Laws of the land (Cyfraith y Wlad).
3. Arfer :—customs or forms of trial.

And again, Chap. I. is headed, Laws of Women, as it contains Laws for the Rights and Protection of Women ; and that those statute-laws were not deemed laws of the land is clear, inasmuch as the first words of the second chapter are, "Here begin the Laws of the Land" (Cyfreithieu y Wlad).

Then again, on the other side, on looking into the laws of our elder brethren, the Frisians, I find it declared that the law of the land, "Dat Landriucht," takes in both the canon law (Paws riucht), and the civil law (Keyser's riucht) ; so that, as I cannot learn what is the law of the land, I know not whether we have the safeguard of Magna Charta, or have it not.

Those who would write down either juries, or the verdicts of the whole rather than of a majority, as a clumsy hindrance to justice, may want to find convicted the rogue whom they have already convicted in their own minds, and they may yearn for any trial gear that would most quickly and surely work out their own wills ; but the truth is that, if conviction were the aim of a trial, there would be no need of jury or judge. A man is holden to be guilty by his accusation and commitment for trial ; for on what other ground than that of guilt can a man be taken out of his English freedom, and cast into a jail? Leave him to the prosecutor's accusation, and he will convict him. Leave the state-prisoner to the tyrant, and he will find him guilty. But no. The prosecutor holds that the accused is guilty ; but the law, though it allows him to be taken for trial, still holds that he is guiltless till he has been convicted by his peers, and brings those peers to clear him, if they can, with a good conscience, from the prosecutor's accusation. So much the more foolish, some may answer, when we know all the while the villain is guilty ; and for rogues, such as we know him to be, summary conviction is much better than the clumsy machinery of a trial by jury. In answer to such an opinion I will tell a fable. A man had a good axe and a long lathe ; and, when he wanted

to chop up some small wood for nickies, as we call them in the West—some little bundles of wood for lighting fires—he said to himself, “ What a clumsy tool is this for chopping nickies !” and he gave away his axe for a small bill-hook ; and, on wanting to turn some nicknacks, he gave away his great clumsy lathe, as he called it, for a little table machine ; but, a month afterwards, he wanted to fell a tree, and to turn some banisters, and he thought, “ Oh, hang it ! I wish I had my axe and “ big lathe. I might have chopped “ nickies with my axe, and might have “ turned my nicknacks with my long “ lathe, better than I can fell a tree with “ this little bill-hook, or turn banisters “ on nine inches of lathe-bed.” Trial by jury, the axe and the long lathe, may be rather heavy for some little jobs of justice ; but never mind ; keep it for great ones. Men want a machinery that will save a Naboth’s vineyard and life from a Jezebel ; helpless right from great might.

A writer on Turkey has given some notes on summary punishments or convictions of Mohammedan law. A baker, at Constantinople, he tells us, was standing at the door of his shop with a friend from the provinces, and saw coming to his house the inspector of weights. He at once fled, lest that judge, jury, and officer, should nail his ear to the door-post. His loaves were found short of weight, and what could be clearer than that the only man in the shop should be its owner ? *He* must be the guilty baker, and *his* ear was nailed to the door. There is a political maxim in Turkey that irksome legality is less good than quick injustice, because the fear and awe which so rigid a manner of proceeding infuses into the hearts of the people make them ready to obey the most irrational commands.

Men are of two opinions whether it would be best that a verdict should be taken as good from a majority of a jury as well as of a one-minded one. I would not, however, even with Paley, give up our law of a one-minded jury for that of a majority. Hampden was tried by twelve judges, who were, *de facto*, a jury ; and eight gave a verdict against

him, while four deemed him in the right. If the law of one-mindedness had holden over the twelve judges, as it holds over twelve jurymen, he might have won his suit against the king, and the constitution might have been preserved without the civil war and Cromwell’s military despotism. Again, juries of a few-voiced verdict would be more easily packed, or tampered with by strong minds among themselves, than could our juries of one-voiced verdicts ; and the latter gives less might to the mighty side when that side is to be feared. Farther, a few-voiced verdict would be far less satisfactory than a full-voiced one to men at the bar, and all their friends, and, in political trials, to friends of their cause. A man’s friends would say, “ Oh, yes, our father, or brother, or cousin, or friend, is convicted, forsooth, and how ? Why, he is condemned to the gallows, or the prison, or to banishment, when five of the jury were convinced he was guiltless ; and we know who turned the scale of opinion—two weakminded fellows who were biassed by others, his foes.” To be constantly breeding dissatisfaction and disaffection to the laws would be a great evil; and, if writers now complain of the injustice of verdicts of one-minded juries, much more would they complain of verdicts of seven juries, when five were of their own opinion.

“ Nay, but,” it has been said, “ it is a great hindrance to justice when one stubborn juryman holds on his opinion against his eleven brethren, so that the jury is discharged without a verdict.” Now the little evil and the great good of this case has been most nicely hit by a writer in the *Illustrated Times* of the 23d of March, 1861. The judge had discharged a jury, (though not from a want of onemindedness,) and, as it was, says the writer, there was no trial ; consequently they (the prisoners) might again be placed at the bar—nay more, the jury may be again discharged, and the same course be adopted during the lives of the parties. There is something gratifying in this

capability of the law to grapple with such cases. Had the prisoners been acquitted, they could not again be tried for the same offence.

Some have begun to write down grand juries as a clumsy machinery, and a needless call on men's time. They are, however, a great safeguard against the evil of malicious or tyrannical indictments, as is shown by their manifold cases of No Bill; and they fulfil some share of the office of the British and Saxon-English jury.

It might still be good that we should

have trial by jury in *all* criminal cases; and we might have it for light cases in lower hundred courts or district courts, with six, if not twelve, jurymen—as the Britons had for light cases fewer than twelve oathsman, and as the Hindoos have, I think, village juries of five men. Six plain good men might be paid each half-a-crown or more for their day out of the court fees, might sit under a magistrate as judge, and might form a court which, for some squabbles, might act as a court of arbitration.

### THE SHADOWS.

My little boy, with pale, round cheeks,  
And large, brown, dreamy eyes,  
Not often, little wisehead, speaks,  
But yet will make replies.

His sister, always glad to show  
Her knowledge, for its praise,  
Said yesterday : "God's here, you know;  
"He's everywhere, always.

"He's in this room." His large, brown eyes  
Went wandering round for God;  
In vain he looks, in vain he tries,  
His wits are all abroad.

"He is not here, mamma? No, no;  
"I do not see Him at all.  
"He's not the shadows, is He?" So  
His doubtful accents fall—

Fall on my heart like precious seed,  
Grow up to flowers of love;  
For as my child, in love and need,  
Am I to Him above.

How oft before the vapours break,  
And day begins to be,  
In our dim-lighted rooms we take  
The shadows, Lord, for Thee.

While every shadow lying there,  
Slow remnant of the night,  
Is but an aching, longing prayer,  
For Thee, O Lord, the light.

GEORGE MAC DONALD.

## STRAY NOTES OF NATURAL HISTORY FROM THE CONTINENT.

BY CORNWALL SIMEON.

It is but a few years since steam established its dominion on the great high-road between Havre and Paris, and the horses which, harnessed to *malle poste* or diligence, could hardly fail to attract the attention of the traveller who entered France by that route, yielded to their more powerful rival. A very striking team it was, behind which he found himself on taking his seat in the diligence in those bygone days. Probably few things which during his stay in France may have attracted his notice as more or less different in their form, arrangement, or management, from those which would have served similar purposes in his own country, will have left a more lasting impression on his mind. Though gainers by the change which has taken place, it is almost a matter of regret that there, or elsewhere, we can never expect to see the like again. It must be still familiar to many readers; yet, as from its very age it may savour of novelty to some, the former will, perhaps, forgive a short sketch of it.

It consisted of seven white horses, not large, but compactly made, active fellows, probably standing about fifteen hands and an inch in height, and matching so nearly, in general shape as well as in colour, as to render the *tout ensemble* eminently symmetrical. In looking them over, the principal points which at once struck one were the massiveness of their crests, the lurking devil in their eye, their round, full quarters, and their knotted tails. They were harnessed four and three; four as leaders, and three at wheel, one of the latter doing duty as the *deltoeipoc* mentioned by Herodotus.

To us, accustomed as we were but to comparatively light coaches and lighter mails, with four-horse teams, such a one as that which I have just attempted to describe, appeared at first sight to possess an amount of strength more than

adequate to any work which they could possibly have to do. But a cursory examination of the ponderous and unwieldy machine, called a diligence, which they were required to draw, would be quite sufficient to convince one that, if it were tolerably well loaded, the horses had their work fully cut out, particularly if the pace expected of them were taken into consideration, it being equal generally, with stoppages (about which the *conducteur* took his time), to about eight miles an hour.

The diligence was ordinarily constructed to hold (besides *conducteur* and driver) at least eighteen passengers. In addition to these, the luggage, a miscellaneous collection of goods, containing many objects which would, with us, have been considered too heavy or bulky for a coach, and been forwarded by waggon or canal, was stowed away in a high, roomy, loft-like place communicating with the *banquette* in front. It almost invariably also carried its live stock, in the person of a Pomeranian dog, black-eyed, black-nosed, with the curliest of tails, and whitest of coats, who had the run of the whole top of the diligence amongst the luggage, with free access to his master in the *banquette*, where he usually kept him company, when it was not otherwise occupied. He completed the cargo—ostensibly at least; for the *conducteur* was not above occasionally accommodating, in excess of his regular load, a short-stager or two, who stowed themselves away, as best they might, in, or behind, the *banquette*. Such was the load, weighing not much, if at all, under six tons, which these teams had to draw at the rate above mentioned; and well they did it.

The harness was, in appearance, of the roughest, being of untanned leather, with rope traces; and the bloused and sabotized driver—to call him coachman

would convey an erroneous impression—who was changed, with his horses, at every stage, undistinguishable in dress and appearance from an ordinary labourer. Whatever they may have been, however, in the outer man, they undoubtedly drove remarkably well; the horses, indeed (a great proof of good driving), apparently requiring next to no management. It was a remarkable sight to see this particular team of seven “tooled” through the narrow streets and round the sharp corners of Rouen on a market day, when densely crowded with booths and stalls. The quickness and activity displayed by the horses individually was, too, astonishing; so much greater than could have been expected from their “stocky” forms. I remember seeing a leader come completely down while the team was descending a long incline at a sharp trot, and recover himself without injury before there was time for him to be dragged.

The change was always a lively sight; for, at a meeting of fourteen such horses, it was scarcely to be expected but that some freak of temper, or ebullition of wilfulness, would occur, more entertaining to the passengers than soothing to the temper of the ostler, judging from the very particular and energetic manner in which he anathematised them—“*Sacré b— de crapaud vert,*” being, for instance, an endearing expression I have heard made use of under the circumstances. I once saw a tremendous fight between two of these horses, a near-leader and an off-wheeler, when just taken out of the diligence after rather a long stage—having been prepared for it by the *conducteur*, who told me that those two horses, when measures were not taken to prevent them, were always certain to have a battle. On this occasion they were left to themselves when unharnessed (I think to prove the correctness of the *conducteur’s* assertion), and in a moment they were at it, the leader turning round and fixing the wheeler by the neck in the most determined and savage manner. The stable-helpers succeeded, after considerable difficulty, in parting them, before either had received

much damage; but the *conducteur* told me he fully believed they would never rest satisfied till they had succeeded in obtaining a *combat à l’outrance*, and the victor only came alive out of it.

The days of such teams are gone, never to return; but the colour which characterized them in the north of France still forms a conspicuous feature in the horses throughout that part of the country, including Paris, where, while taking refuge from a shower of rain under an arch in the Rue de Rivoli, last spring, I had the curiosity to count those which passed, and found the numbers to be a hundred of white and grey to seventy-four of other colours. In the Bois de Boulogne the relative numbers would probably show a considerable difference; so large a proportion of the horses used for riding (or their parents) being imported from England, while those used for purposes of draught are still mainly recruited from the northern breeding grounds. As one proceeds southwards, towards Italy, the colour of the horses may be observed to undergo a gradual change, becoming darker and darker, brown being that prevailing amongst those along the district of the Rhone (where, owing to their natural development being generally interfered with, they also lose in great measure the roundness and symmetry of form which distinguishes them in the north), while in the neighbourhood of Rome the majority are absolutely black.

It is certainly somewhat singular that, while the colour of the horses becomes thus darker as one draws southwards, the reverse is the case with regard to cattle; which, being mostly of the darker shades in the northern districts of France, are found gradually lighter and lighter as one gains a more southern latitude, until, in Central Italy, they are, almost universally, of a very light, delicate dun.

Ordinarily, whether as regards animals in a natural state, or those bred under the immediate eye of man, it will, I think, be found that the prevalent breed or variety is that which has proved itself, for some reason or other, best suited to the peculiarities of the dis-

trict or the climate. Now, considering how large a proportion of the horses in the north, and of the cattle in the south, are light-coloured, it may fairly be supposed (if there be any truth in the above theory) that the prevalence of the lighter shades are, in both instances (to some extent at any rate), attributable to the influence of climate, or perhaps a combination of other local circumstances. Why these, whatever they may be, should have a diametrically opposite effect on the two species of animals, it would be difficult to hazard a plausible conjecture.

Striking as is the delicate pure hue of the cattle of Central and Southern Italy, it is far from constituting their only, or chief attraction; so admirably does it harmonize with their other general characteristics. So nearly approaching to perfection indeed are a very large proportion, both as to individual "points" and in the *tout ensemble*, that one finds oneself gazing on them with quite as much admiration, when familiarised to them by a prolonged residence, as when looking for the first time on their symmetrical, yet massive forms. Where can be seen a more picturesque sight than a pair of these magnificent oxen, dragging with bent heads, and paces as certain as they are slow, a load of hay up some broken and precipitous road, or in a state of repose, sleeping or chewing the cud in the Forum, each pair by their empty waggon, while waiting to return after the day's market to their homes in the Campagna?

Apart from general shape, the four features to which they principally owe the extreme picturesqueness of their forms, are the slightness of their bone, the delicacy and smallness of their muzzles, the great size and length of their wide-spreading and finely-tapering horns, and their round, black, contemplative eyes. No one, I am persuaded, who has not seen animals of this or similar breeds, can realize the character of expression with which Homer designed to invest the high divinity Juno, in distinguishing her as *βοῶπις*. At any rate I think it may be conceded

that Dr. Samuel Clarke, S.T.P., had but an imperfect notion of the fulness of the meaning conveyed by the epithet, when he translated it, "*magnos oculos habens*."

It is curious to turn from these noble beasts to their ungainly congeners, the buffaloes, with their uncouth forms, their coarse heads and limbs, their small, inexpressive eyes, and their stunted and deformed-looking horns. Of all the beasts which man has made subservient to his use for purposes of draught, there is perhaps none which looks so little at home in shafts, or generally so little fitted for his work. One was some years ago to be occasionally seen about the streets of Oxford, harnessed with a cow; and it would have been almost a matter of impossibility to produce any animal more entirely out of his place, or miserable-looking, than he appeared under the circumstances. To be seen perfectly at their ease, and in the fulness of enjoyment, they should be sought during the heat of summer in such localities as the Pontine marshes, where, in a deep canal, twenty or thirty may be seen lying (or rather half standing, half supported by the water), with their bodies completely submerged and their heads thrown back, so that no part of them is visible but the eyes, nose, and mouth, with the flat facial line which connects them, the herd showing no more than so many bits of dry wood floating on the surface.

He who has seen them thus

"wallowing  
Through the hot summer day,"

will but need to be reminded of the derivation of their name, to acknowledge the appositeness of their distinctive title, as emphatically *the Bœuf à l'eau*.

It is scarcely possible that the traveller, by whom the stir of animal life about him does not pass unnoticed, or indeed any one not absolutely deaf to the musical hum of birds (which seems to pervade the atmosphere of our rural districts to such an extent as to be almost mechanically and unconsciously

accepted as a necessary adjunct to it), can fail to remark the singular absence of his winged friends in the other parts of Europe (with rare exceptions), and particularly in France and Italy. Let him wander as he will through the orchards and cornfields of Normandy or Brittany, the vineyards of Languedoc, the orange-gardens and olive-groves of the Riviera, or the myrtle-clad slopes of Southern Italy, the same dreary want of indigenous birds perpetually makes itself felt. In France not only the eye and the ear have at length had cause to regret this dearth of birds—they might have long pleaded for them in vain—but they have happily enlisted in their favour an advocate infinitely more sensitive and acute than either, and whose voice is so powerful, that he is not likely to raise it in vain—that of the Pocket ; it appearing, by a report recently presented to the Legislative Assembly, that a late failure in the crops was mainly attributable to the attacks of insects, which the destruction of their enemies, the birds, had allowed to increase to an alarming extent.

It will be interesting to watch how far legislative interference in their favour, which may result from this report, will be effective in increasing their now scanty numbers, and to what extent their increase, if it be so far effectual, will answer the ultimate purpose for which it was designed.

Judging from the specimens which are often to be found exposed for sale in the markets, it would appear that neither in France nor Italy are the people very particular as to the description of birds which are put into requisition for the table, anything from a hawk to a robin doing duty as *gibier*. My knowledge of ornithology saved me (for instance) at Tonnères from making an essay upon a magpie, which had been served up to me as a young pigeon.

Fancying, as soon as I saw it, that there was something rather unusual about its general appearance, I was induced to examine one of its feet, which had not been removed, but tucked in under the body. This, as I rather ex-

pected, instead of the short hind claw of the pigeon, exhibited the longer one which forms a distinguishing feature in the magpie ; the other showed a similar result. On this I summoned the waiter, and asked him of what kind he might consider the bird in question to be.

*“Vraiment, Monsieur,”* was his answer, *“je ne pourrois pas vous dire, mais je vous assure que c'est excellent.”*

Having then suggested that, unless I was greatly mistaken, it was a magpie, he replied—

*“Mais, mon Dieu, Monsieur, je n'en sais rien; on m'a dit que c'était un pigeon. Mais, quel que ce soit, je vous assure que vous le trouverez excellent.”*

By far the larger proportion of the birds that are at present seen during the summer months in France and Italy, are of the migratory class ; the loudest and most noticeable in song being the nightingale and white-throat, the former of which I heard in full song (on the road between Venice and Verona) on the 28th of last June, long after the usual warble of this species ordinarily gives place to the chirrup and grating “purr,” which succeeds it at nesting time. Of other birds, in Rome at any rate, the little wren, whose insignificance is, I suppose, his protection, is alone in full force. Creeping along the orange and lemon-covered walls of the garden, he pours forth his cheery, thrilling song, with a volume which I have certainly never heard equalled in this country, and which seems quite out of proportion to his tiny form. While I was visiting one afternoon the church of the S<sup>ta</sup>. Maria degli Angeli, one of the largest within the walls of Rome, I was astonished at hearing it perfectly filled by the voice of one of these little choristers, who, resting a moment on a projecting cornice from his busy labours, gave out what might well have been fancied his earnest melody of praise and thankfulness.

In the streets of Florence may be (or might have been a short time ago) not unfrequently seen a lad whose business it was to come in from the country with

living small birds for sale. Instead of bringing them in cages, after the ordinary custom, he made them find their own locomotive power, driving them on in a flock before him like geese or turkeys. When I saw him, the convoy under his charge consisted of some twenty or thirty wagtails, which, with their wings slightly clipped, ran along cheerily before him, beguiling the time by striking at flies, or examining the ground in search of other food, while he brought up the rear with a small rag-topped stick. While I was watching their proceedings, two heavily-laden vetturino carriages, which had just started, drawn by four horses each, thundered up the street with a great flanking and cracking of whips, charging directly through his small *protégés*, who scuttled away helter-skelter in every direction as fast as their legs and limited power of wing permitted them, scattered to all appearance in utter confusion. From the indifference with which their conductor viewed the dispersion of his convoy, it might have been thought that he deemed any attempt on his part to reassemble them would have been labour entirely thrown away, and that he gave them up for lost, so hopelessly did they seem to be dispersed. The carriages had, however, passed on but a few yards, when, one dropping down from the pavement on one side, one running in from another, the birds began gradually to draw together again of their own accord, and in a minute or two were all pursuing their course again up the centre of the street, hunting for flies, and flirting their tails as gaily as if they had had no cause for alarm.

There is perhaps no bird which, to the mind of any one who has formerly tasted the delights of the soft Italian evenings, recalls more freshly and vividly the memories of those bygone days, and is reheard with a warmer welcome, than the little scops eared Owl (*Scops Aldrovande*). Although, from having occasionally lost his way, and been blown over to this country, he has established his claim to a place among British birds, yet, to be found "at home," he must be sought amongst the

outskirts of Italian or Spanish towns, where, as soon as the sun has sunk below the horizon, half-awakening from his long day-sleep, and sitting ensconced in the dense foliage of one of the formal round-headed acacias, which almost invariably afford shade to the public walks and squares of these towns, he breaks the silence of the still evening with his single, unvarying, flute-like note. This, most nearly approaching to "G natural" (above the "middle C") in music, may be said to bear much the same relation to that of the large Brown Owl's cry, as a Devonshire man's pronunciation of the word "who," is to that pronounced in the more generally accepted manner. This note he repeats at such brief and regular intervals, that, considering the shortness of the summer-nights, and that his days are consumed in sleep, one is somewhat at a loss to understand how he can find time for the ordinary purposes of life.

He may not unfrequently be seen, poor little fellow, blinking on a stand outside a poultry-dealer's door, in the neighbourhood of the Pantheon (where a very miscellaneous collection of birds is often exposed for sale), the destined employment of his captivity being, suspended in a tree, near which his owner conceals, to attract small birds (who are always ready to mob and bully an owl of any kind) within reach of his fowling-piece; a style of *chasse*, one would imagine, scarcely more remunerative than interesting—but there is no accounting for tastes.

A little tinkling glass-bell-like sound, proceeding from an alder or mulberry-tree, may not improbably be ascribed by the person hearing it for the first time to a bird; nor will it be so easy a matter as might be imagined to prove to his satisfaction that the contrary is the case. Should he approach with his ordinary step the tree from which it proceeds, it at once ceases, not to be recommended until he has again retired so far as to assure the performer that he may do so without compromising his safety. Let him try it once more, making his approaches with his lightest and most

careful step, and, if possible, keeping the trunk of the tree between him and the musical unknown. Should he thus succeed in surprising him, he will see perched up aloft there a little green frog, with a square bull-dog-shaped head, and quick, black, intelligent eye, whose puffed throat, moving with the modulations of his song, as though water were trickling down it, announces plainly that he is the vocalist, to whose amorous or contented mood it is to be ascribed.

They are often kept in confinement, in which state (merely in a glass, covered with muslin) they will survive a long while; the only food they seem to require or care for being house-flies, which they display extraordinary quickness in seizing and swallowing. The instant one is put in under the muslin cover, a small bright eye scans it for a moment; there is a dart from below, and the fly has disappeared; the whole process being so rapid that the eye can hardly follow it.

Talking of flies, would that all the powers to which they are welcome as food, or unwelcome as company, would join in annihilating them at once and for ever! Had I my choice as between them, midges, gnats, fleas, and other strange bedfellows with which travelling (as well as poverty, according to the old proverb) is calculated to make one acquainted, the one on whom I should first pass extreme sentence would be the common House-fly. In bed or out, sleeping or waking, in hot or cool climates, as soon as summer brings them forth, there they are, ever present, ever ready to renew their intolerable persecutions. After suffering from their attacks for some months, one is really almost tempted to consider Domitian a benefactor to his species, or, at any rate, to fancy that the author of "Busy, curious, thirsty fly, etc." if he did not write it in a spirit of bitter mockery, would never have given utterance to a piece of such maudlin sentimentality if he had not been induced with a skin of more than ordinary thickness, or been fortunate enough to live in a country where they confined their

visitations to the sugar-basin and cream-jug.

Were they to limit themselves to one feeding-ground, and simple downright biting, one might, perhaps, sleep through it and forgive them; but who can endure the determined, pertinacious attacks of a regular man-eating fly? Watch one, as with eager, hurried pace, and wings nervously raised and half quivering with excitement, he approaches the face of a person enjoying (perhaps after a disturbed night) the quiet sleep of the early morning. Of a flea's presence he would probably be unconscious till he awakened; the step of a gnat is so light, and his bite so gradual, that, should his humming not have disturbed the sleeper, he, while enjoying his meal, would have left his victim in undisturbed enjoyment of his sleep; he "lives and lets live." But otherwise is it with the fly; he feeds as he goes, and the titillatory powers of his six feet and extended sucker, would be together too much for the skins of reapers, thick even in proportion to the proverbial hardness of their *ilia*. Again and again may the hand, half in sleep, be raised to brush away the intruder; no sooner have the muscles once more become relaxed, and the hand has sunk inactive after a vain attempt to scratch the face he has left, than he renews his attack, to be again driven off by the disturbed slumberer. Again and again will he return with undiminished pertinacity, only giving up the attempt when his victim, at length, resigning himself to his fate, relinquishes further sleep as hopelessly unattainable, and betakes himself to the active business of the day. Of a truth, no more appropriate or suggestive title could have been devised for the arch-enemy, or one breathing a deeper hatred for the accursed insect, than that of "Beelzebub," "the Lord of Flies," the prince of torturers.

In mentioning the fly as nearly ubiquitous, I am bound to acknowledge my debt of gratitude to Venice as a singular exception. Whether it be always so, I cannot undertake to say, but las-

summer, at any rate, during a stay of more than a week at the very hottest period of the year, in a situation apparently favourable to them, not a single one did I ever see in-doors or out.

Though it is impossible to render oneself entirely proof against the annoyances of these tormentors, yet, by a very simple expedient, a person may be enabled in great measure to set them at defiance, and travel in comparative comfort, as far as they are concerned ; it being merely a square yard (or rather less) of light mosquito net. It occupies a very small compass when doubled up, and can just lie under the pillow if required for service in the morning, or be carried in the pocket should a *siesta* be deemed advisable while travelling, or during the heat of the midday halt. The comfort of life depends, to say the least of it, fully as much on little, as great things ; and this, though apparently a mere trifle, contributes towards it, *experto crede*, fully its share.

What gnats, fleas, and midges feed upon, when what we consider their ordinary food is unattainable, has always been to me a mystery nearly as difficult to solve as the question how the number of attorneys and beer-shops in some small country-towns can possibly be supported. Gnats are found swarming in out-houses, where they have no visible means of subsistence. A person stepping into a deserted hut will sometimes come out with the legs of his

trousers blackened with fleas ; while midges, which may seem through many days of cold or stormy weather to be utterly extinct, suddenly issue forth on a warm afternoon in countless clouds, assailing the unfortunate sportsman with the appetites of giants refreshed with sleep.

Although I believe the contrary to be the case as regards mosquitos and midges, yet there can be no doubt that people who live in a country infested by fleas become acclimatized to them, and thus almost totally disregard their attacks. They resign themselves to their presence as a necessity (scarcely as a necessary evil), and cease to trouble themselves about them in any way whatever. To how great an extent this is carried, the following incident will convey some idea. A waiter, who had brought something to my breakfast table (at one of the best hotels in Naples), seeing a flea taking his morning stroll on the tablecloth, took him up gently with his finger and thumb, and put him, without killing him, on the floor. This rather exciting my surprise, I said to him, What, don't you kill the fleas when you catch them ? "Ah, no, Signore," said he, "*que fare, la vita è breve.*" By which, whether he meant that his life was too short to be always at the trouble of killing fleas, or that of the flea was naturally so short that it would be a shame to curtail it, he left me, as I leave the reader, to judge.

## RIFLE-SHOOTING AND DRILL: THE CRISIS OF VOLUNTEERING.<sup>1</sup>

THE three publications the titles of which we subjoin represent, in various

ways, the existing state of what is now felt to be a great national interest.

<sup>1</sup> Proceedings of the National Rifle Association. 1861.

Field Exercise and Evolutions of Infantry, as revised by Her Majesty's Command. 1862.

Pencil-notes on Drill, or, Notes on the Field Exercise ; originally drawn up for the Use of the Officers and Sergeants of the London Scottish Rifle Volunteers. By Captain S. Flood Page, Adjutant of the London Scottish, and late Adjutant of the City of Edinburgh Rifle Volunteers. London : Parker, Son, and Bourn. Edinburgh : A. and C. Black. 1862.

In the *Proceedings of the National Rifle Association* for 1861 we have the last statistics of the British art of rifle-shooting. A little while ago there was no such art among us. Our soldiers had their muskets, and our sportsmen had their guns ; but for the population at large the sight of a firearm, except in the window of a gun-maker's shop, was a rare thing, and the notion of ever possessing one, or being

in the habit of using one, an absurdity. Almost in an instant this state of things was changed. By a mere stroke of the pen on the part of Authority at a suitable moment, there was effected perhaps the most important, and certainly the most sudden, change in the system of our national manners which this generation has seen. It became lawful, and was even declared desirable by the Crown, that all over England and Scotland the inhabitants should form themselves, in a regular manner, into companies and regiments of Volunteer soldiers. It seemed that a strong demand for this change, as a matter of necessity and right, was already pent up in the national breast; for the response was immediate. Our streets in cities and towns, our village-greens and commons, burst at once into a bloom of uniforms—light-grey, dark-grey, dark-green, red, and so on—worn by men who had never worn uniform before, and had thought to descend into their graves without ever having done such a thing. It was not merely our very young men, in quest of novelty, excitement, and exercise, that so appeared as Volunteers, but our men also of more staid age and habits in even greater proportion—men who almost reluctantly incurred the trouble of thus personally showing how heartily they approved of the movement, and who for some time spent no end of half-crowns in cabs, out of sheer horror at being seen in their uniforms, and only gradually learnt to walk in them unabashed. Among the mixed motives that drew the Volunteers together there was none that was not innocent; most were laudable; and at the heart of all, we believe, to give dignity and endurance to the others, was a conviction entertained by thousands that in the Volunteer System a noble addition had been made, not a bit too soon, to the institutions of the freest country in the world, and that, in personally supporting it, one would be exercising a real privilege, and discharging a real duty.

Well, the thing succeeded; the Volunteer system did become an institution of the country; and there arose

our now established toast at public dinners, of "The Army, the Navy, and the Volunteers." And, as the Volunteer system burst out of the prior state of public feeling, so out of the Volunteer System burst the new British Art of Rifle-Shooting. In due time, when our effective Volunteers had, in the course of their drill, learnt the manual and platoon exercises, and so got accustomed to the feel and the weight of that awful thing, the rifle, a considerable proportion of them, not unwilling to know more of the creature, were passed in squads through Position Drill, and so made free of the Rifle-ground, where they could satisfy themselves of her more dangerous capabilities, and of their own fitness to have such a pet. On raw spring mornings, in fine summer afternoons, and at other times and seasons, men would be gathered together in tens or scores, in waste out-of-the-way places, like conventicles of Covenanters, or troopers in search of such, save that their occupation was in gazing at white targets, with black spots in the middle of them, placed against distant banks of earth. Some of these assembled aspirants were confident in their former experience as shots against birds and hares; others were very much in doubt what would happen when it came to their turn to step out, and whether, when the rifle was at their shoulder, and they had to pull the trigger, it might not be best to shut their eyes and bid the world farewell. Miraculous it was, but the fact, that many of these utter novices did as well as the experienced shots, or even better. A centre, perhaps, for the first shot at a hundred and fifty yards made one think that possibly after all there was a lurking faculty of shooting in one, if it could be brought out; or, at all events, the respectable achievement of promotion to the Second Class on the first day out, put one in heart. And so out of the crowds who went so far, and who, contracting a natural affection for the creature that had wakened in them such sensations on the first day's real acquaintance, took her home and cleaned her and oiled her and put her carefully in a

corner, many went to the butts again and again, and, through difficulties of wind and sun and all sorts of botheration, won their First Class, or even attained the honour of being Marksmen. And still the attractions of Rifle-Shooting as an amusement and an exercise continue undiminished ; and the numbers of those who, to their own surprise, betake themselves to this amusement increase steadily ; and in every district over the country the "crack crack" of practice in the Rifle-ground has become a sound familiar to the natives. The very language and thought of the nation have been affected by the prevalence of the new pastime. Travelling in railway carriages, plain passengers of purely commercial mind find themselves bewildered with talk going on all round them of outers and centres and bull's eyes ; friends will sit together by the half-hour recounting their splendid scores, exulting in their yesterday's three centres running at five hundred, and, in fact, running the risk of lying and boasting awfully before they are aware of it ; and already a whole host of images, metaphors, and turns of thinking, drawn from the circumstance of the Rifle-ground, has become imbedded in our conversation and literature.

From the very first it was highly desirable that direction and organization should be given by some central management to an enthusiasm so widely spread, and a form of pastime so popular and important ; and from the very first such direction and organization were admirably given by the National Rifle Association. Under the auspices of this body there was brought together at Wimbledon in 1860 that great Congress of the picked shots of the whole land which resulted in the recognition of young Ross as Champion Shot or Rifleman Laureate. Then, after much work in the interim, came the second year's Demonstration and Congress, when Jopling was the man. It is the proceedings of this last meeting, together with all the related Statistics of British Rifle-Shooting during the year 1861, and the names and scores of hundreds

of prizemen and competitors, that the Association have now published. May the publication be as annual as the Almanack ! The Wimbledon meeting of this year—the year of the new International Exhibition—ought to be the grandest and most successful of any yet. Already, in this second year's Report of the Association, there is proof that the national skill in the use of the Rifle has improved as well as extended itself—that Great Britain has now as good a little army of Rifle Shots as there is in the world, and could, on occasion, protect her inland hedgerows, or tuft her line of sea-downs and cliffs, with choice marksmen, the white puffs from whose rifles would be the calm sign of sure bullets and be followed by the leap of death.

At the same time never was truer word spoken than that of Colonel M'Murdo the other day, when he impressed upon one of the best shooting regiments in our whole Volunteer force, that Rifle-shooting dissociated from Drill, or not resting on Drill as a solid and permanent basis, would really be little more than the amusement which its votaries find it, and an agreeable periodical indulgence in cracks and puffs of smoke. The regiment to which he said this, we believe, is itself a well-drilled one ; and he intended his advice for Volunteers all over the country. For Volunteering is now at its critical stage amongst us. The first novelty of the thing is over, and it remains to be seen whether it will be kept up. Colonel M'Murdo himself was hopeful on this point ; and his information that, by the last returns, the Volunteer force was larger than ever—amounting, we believe, now to some 170,000 men—was very gratifying. But, on general grounds, as well as from the experience of some particular corps, there is an anxiety in some quarters as to the prospects of Volunteering in the year now begun. In other words, a question now going among those who are interested in Volunteering is, "Will the men still come to their Drill ?"

To begin a thing of this sort, and afterwards to give it up, except for very urgent reasons, is what every man of

ordinary self-respect ought to think disgraceful. To set one's hand to the plough and then to turn back argues, in whatever matter it may be seen, a weakish sort of human nature. Perseverance in a matter once undertaken—even passive continuance in a routine of occupations once begun—is a mark of moral strength, and brings things wonderfully into order and conformity. If one were to appoint a commission to select for any important national purpose 20,000 men of such approved fibre that reliance could be placed upon them without farther inquiry, it might not be the worst plan for the commission simply to get together the names of the Volunteers that have been most regular at parade and drill. There is stuff in these men, there is tenacity; they don't chase butterflies. And, curiously enough, it is exactly these men—the men who might most speciously plead some of the reasons assigned for being less regular at drill than at first—that never think of pleading them. What is the most frequent reason assigned for neglect of drill by those who do neglect it, and from the operation of which on the large scale some expect that our so stable Volunteer System will dissolve or become honeycombed like the Bridge of Mirza's Vision? It is that, Drill being already learnt, it will keep, and that it is unnecessary to go through irksome work over and over again. Commanders of Volunteer Regiments are bound to catch the real meaning that there may be in this complaint—in the first place, not to make more frequent calls of the men together than are necessary to keep them efficient; and, in the second place, to devise such variations and higher developments of Volunteer work, in the shape of occasional outings, skirmishing practice, meetings for shooting, brigadiings with other corps, &c., as may rouse fresh interest. But it is not the steady men, who know their ordinary drill best, that think they are perfect in it; and it is enough to see a late absentee from drill once more in the ranks, to have proof that the arts of wheeling, keeping the touch, making a smart

present, and the like, won't remain long in one's system if they are not occasionally brushed up. Already, we believe, an amount of knowledge of drill has been diffused throughout the community which, if our Volunteer Service were to be dissolved to-morrow, would be a permanent possession, or tradition, of some use. But it is not to-morrow, nor next day, nor any day within as far a vista of the future as the eye can range along, that the Volunteer System, which we have established with such pains, can safely be permitted to fall into dissolution. No! in the interests of peace, as well as those of persistency and honour, it is not so. True, the exact combination of European affairs on the spur of which the Volunteer System formed itself exists no longer. We are at peace with the world. Among all the storm-clouds floating about the horizon none seems at this moment being blown Britainwards. But was the institution of the Volunteer System a mere performance of panic, the uselessness of which has been demonstrated? On the contrary, does not every man know that, in a complex way, the institution of the British Volunteer System told rapidly and electrically on all the international relations of Britain—on the one hand rectifying a thousand little defects and mistakes of foreign opinion with respect to us, on the other discharging some semblance of pusillanimity out of our national tone and bearing—and that now, if we are in an unusually good position, our having the rudiments of a defensive Volunteer army at the core of our empire has had something to do with it. But, farther, the present state of our relations may not endure very long. Not more changeable is the meteorology of the heavens than has been the political atmosphere of the world since 1848. The cycle of changes then begun is not at an end; equilibrium is still unattained. According to all analogy of history, no such large and important organization was ever spontaneously formed by a nation as this Volunteer System, without its pointing

to something, without its being a real presentiment, without a necessity for it lying in wait somewhere or other among the intricate channels and shoals of future time. And what though, as we devoutly hope, this necessity, this moment of pre-established explosion, should be far, far off—far beyond our days, and deep in those other days when the grass shall be growing over us? A fundamental institution in a country has been well defined as “anything which is worthy to be delivered over to posterity.” Our British Volunteer System is such a fundamental institution. It is our part to maintain it; which, being practically interpreted, means, for every Volunteer individually, that then and then only is he entitled to withdraw from the ranks when, having learnt his drill himself as well as he can, he has found at least one recruit to take his place, and to be left as his substitute. Indeed, two or three recruits so left ought to be the price of every discharge just at present—until (and this is our real safeguard) Drill has become so irrevocably a part of our School system for the young, that all the youth of the country shall form a force ready-made when required.

Whatever may be said as to there being no particular necessity for continued drill of the elementary kind for the men, the same certainly cannot be said concerning the officers and serjeants. A highly creditable amount of proficiency in their duties may, indeed, be already reported as having been attained by many officers and serjeants of Volunteers; and, in cases which must have come under the notice of most, it has been a matter of surprise what real natural aptitude has been shown by civilian officers for a kind of work which, considered merely as an intellectual and mechanical exercise, is full of beauty and interest—a more serious and more manly chess. But, on the whole, we cannot yet cease to fear that, if our Volunteer System were practically tested, the training of the officers would be found, as in America, to be the point of weakness. The minimum of proficiency to be

aimed at in this matter certainly is that each subaltern in every company should be able to drill the company, or to take the captain's place while it is being drilled, and that every captain of a company should be able to drill the battalion. How far we are from this state of things let the consciences of officers as regards themselves, as well as their observation of others, declare. When by chance an unexperienced subaltern commands at company drill, what perverse appearances he will make at the wrong flank, what bogglings at the formation of subdivisions on the march, what frantic efforts to retrieve himself by the wrong word of command! And if captains do not equally expose their inexperience, it is because they are usually confined to the duties they have habitually practised. The remedy is practice, repeated practice, nothing but practice—practice of the subalterns in all posts in and with their companies; practice of the captains, where possible, in drilling the battalion. Nothing but actually *doing* the work will effectually teach it; and, though the rare meetings of the Volunteers for drill must necessarily place their officers at a disadvantage in this respect in comparison with the regular officers, as much as possible should be done, at these meetings, to share the opportunities of experience equally. There is, indeed, the *Field Exercise* to refer to and study at home—that noble little Red Book, of which a new and much improved edition has just been published for 1862, and from which, pored over till its accurate details become luminous, so much, not only of Drill, but of the art and machinery of war, may be gradually learnt. But officers may read the Red Book till their eyes ache; unless they actually *do* the work, and perseveringly go through the necessary probation of errors and shamefacedness till they learn to do it rightly, they will never be proficient. To the use of the Red Book, too, and of such practice as they can get, there may be admirable supplementary helps. Captain Flood Page's *Pencil Notes on Drill*, which we have associated with the Red Book at the commence-

ment of these remarks, will be found exceedingly useful. Captain Page's name and antecedents are a guarantee for this. At the last Wimbledon meeting his activity, his power of administering and directing, and of keeping a huge complication of matters well in hand, elicited general admiration; and his experience as the adjutant successively of two great Volunteer Corps has qualified him to know exactly where Volunteers, and especially Volunteer officers and serjeants, are apt to be at fault, and to point out the matters on which their attention should be concentrated. His little work is a

kind of comment, with interspersed remarks of his own, on the Red Book, singling out the salient points which officers and serjeants have to bear in mind, laying stress upon what is most essential for Volunteers, and recommending the different portions of Drill to their intelligence by suitable explanations. Having actually been used as Lectures for the instruction of the officers and serjeants of Lord Elcho's Corps, the adaptation of the Notes to the exigencies of Volunteers may be considered as having been practically ascertained.

#### PASSING EVENTS.—BREAKING THE BLOCKADE.

PARLIAMENT has met, but seldom has a Parliament met with so little animation. The death of a noble Prince and the great war among our kinsmen in the New World cast a gloom upon the nation at large, which has been communicated to its representatives. Nor does there seem to be much prospect of a lively session. The ministerial programme is not much better than a joke. Lord Palmerston re-appears upon the political stage, much as he left it, with an air of imperturbable serenity, and a profound conviction of the importance of a reform in the transfer of land. Lord Derby, with remarkable magnanimity, announces that he will not offer any unnecessary hindrance to the passing of ministerial measures which have never been brought forward, and that he will do all he can "to spare Her Majesty one "additional pang of the affliction that "presses so heavily upon her." With probably still greater annoyance, Mr. Disraeli, in the Lower House, finds himself under the distressing necessity of acquiescing in the general policy pursued by the present occupants of the Treasury Benches. The enthusiasm, which is the reward of Lord Palmerston's judicious conduct in the *Trent* affair, very probably may effervesce during the slow months which must elapse before

the halcyon days of vacation time return. But it is sufficient for a few weeks to cover the short-comings of the ministerial Bill of Fare. The Government, moreover, are evidently prepared to make a political Jonah of Mr. Lowe and to abandon his revised code, should the wise alterations in the original draft not be sufficient to satisfy all opponents. Even if the country clergymen follow the advice of Ahitophel, and give themselves up to a little pro-Tory agitation, the only result will be that the new Minute will go overboard. No Cabinet, indeed, can ever calculate on a quiet time of it which has to ferry Mr. Gladstone and his budgets across the stream. But the great question of the paper duties is dead and buried, and the discussion on the financial proposition of the year will be conducted in all likelihood more impartially than usual. This spring Lord Palmerston's Cabinet is still quieter than usual, and has determined to do anything sooner than disturb Camarina. There are no Government measures, good or bad, to criticise. Mr. Disraeli and his friends will, no doubt, betake themselves to their annual task of rope-making, but this year they are compelled to find their own sand.

Upon the subject of the American blockade, which is the one subject up-

permost in all minds, Her Majesty's speech, like the speech of her imperial ally, was significantly reticent. But the Southern commissioners on this side of the Atlantic are not inactive. In Paris Mr. Slidell is said to have had an interview with the Emperor himself, and to have come away from the European Delphi highly edified and enlightened by the ambiguous responses of the Oracle. In England his colleagues have been pushing their negotiations in all quarters. Cotton is a powerful god; and, though at the critical emergency it turns out that Mr. Bright is not after all its chief prophet, it is clear that the commercial divinity has determined votaries. So vigorous have been their measures, and so uneasy had the public mind become, that Earl Russell's moderate speech was a 'relief' even to the commercial world, the wisest portion of whom are sane enough to know that breaking the blockade would be equivalent to refusing cotton from India in the wild hope of an impossible supply from America. Though private pressure will be put upon the Government, it is probable that the Conservatives will never make recognition of the South or breach of the blockade a party cry. In the first place, though they would be glad to see the South recognised, they do not care to incur the moral odium of pressing the recognition. In the second place, the blockade, if broken, can only be broken by asserting the universal validity of the principle of effective blockades. This principle would hardly sound well in the mouths of a party, whose spokesman,—Lord Malmesbury,—regrets the concessions which were made to neutrals in the Congress of Paris, and hints—in a tone worthy only of Mr. Seward—that national interests may yet require us to violate our solemn agreements.

It is an unfortunate thing that the portion of international law which relates to the right of blockade should be in such an unsatisfactory condition. The Congress of 1856 simply bound the great European powers to the admission that a blockade, to be legitimate, must be

"effective." To that convention America was not, it is true, a party. But as far as the question of blockade goes, she cannot lawfully avail herself of the plea that she has never subscribed. What the Congress of Paris sanctioned by express agreement, America, by her Secretaries of State and her Ministers, since 1789, has been accustomed to assert as a sacred principle of international right. Her general policy has led her invariably to maintain in the interest of neutrals the now acknowledged theory that a blockade, when it ceases to be effective, ceases also to be legitimate. The question, however, is not set at rest by the fact that the United States, as regards blockade, may be treated as if they had signed the articles of 1856. The doubt still remains—what is meant by the word "effective?" The plenipotentiaries who met at Paris felt, we may assume, a difficulty which has figured so prominently in the international history of the last century, and left undefined what it was impossible for them to agree in defining. We have nothing to go upon but the antagonistic pretensions of the various Governments and the various lawyers of the world, each of whom naturally advocates that particular doctrine which is most to the advantage of his respective country. France and French jurisconsults since 1780 maintain that a blockading force must be stationed off the invested port near enough to command its entrance. It has been, on the other hand, the wish of England to extend the definition so far as to allow of a blockade by a "cruising" as well as by an anchored and an "attacking" squadron. The other naval powers of the world, as a rule, have either accepted the French interpretation entire, or at least inclined towards it. Great Britain—the greatest of belligerents—has been considered unwilling to resign the privilege of using an objectionable system of blockade. The rest of Europe, and America to boot, identifying their cause with the cause of neutrals, have thrown themselves into the other scale. At the present crisis, when the question of "effective blockades" is once more be-

fore the world, it is well to see what is and what ought to be the recognised theory of nations in this respect.

In 1780 the "armed neutralities," with France and Russia at their head, for their mutual benefit and the benefit of all neutrals, agreed by a number of conventions,—the language of all of which was virtually the same,—that the practice of this country with respect to blockades ought to be modified and limited. Grotius had rested the right of blockade upon the mere principle that a neutral power has no right to interfere with the investment of a beleaguered port ; hinting in language unmistakeable, though obscure, that a blockade was by sea what a siege was on the land. He had not laid down the unseemly doctrine that commerce between a neutral and the enemy is to be intercepted whenever it can be intercepted thoroughly : nor would it have been possible for the great advocate of the *mare liberum* and the opponent of Selden to take a line so narrow and untenable. Bynkershoek himself, whose doctrine is often harsher than the doctrine of the mild Grotius, understood and appreciated the principle as expounded by his master : and though belligerents, sometimes from insolence and sometimes from imperious necessity, have pretended to excommunicate their enemies from the pale of commercial intercourse, there have always been found plenty to defend and to establish the truth that blockade is only to be justified when it is used as part of a military plan. The definition given by the conventions of 1780 of a blockaded port was an attempt to put down for ever paper blockades,—a species of warfare designed rather to harass an enemy's trade than to occupy his ports. It runs in most instances and in effect as follows :—A blockaded port is "celui où par la disposition de la nation attaquantة il se trouve des vaisseaux arrêtés et suffisamment proches pour qu'il y ait un danger évident à tenter d'y entrer."

According to the laws of nations, as thus expounded by an *ex parte* declara-

tion, the blockading vessels must be present and close to the blockaded port. No official notice would be sufficient to close a harbour until it was *ipso facto* closed by an investing fleet, nor would the sending of a few cruisers to a hostile coast give a colour of legality to a fictitious and illegal measure. On this interpretation, even after the most authoritative warning from the belligerent Government, ships might still set sail for the besieged territory to satisfy themselves that the blockade was indeed a reality and not an empty threat. If stress of weather compelled the blockaders to intermit their watch, according to some continental interpreters the neutral trading vessels might take advantage of the opportunity to slip in : according to others the daring attempt would be justified by success and by success alone. But at all events, the definition required the absolute presence of the belligerent vessels in close proximity to the blockaded spot. Though the rules were laxer, yet the spirit was still the same as the spirit of the old treaties, which stipulated that ten, twenty, or half a dozen vessels, as the case might be, should be necessary to blockade the mouth of a harbour or a port.

The history of the opposition offered by England to the above theory is well known. In the Anglo-Russian Convention of 1801, which was designed to abrogate the conventions of the "armed neutralities," both English statesmen and foreign jurists consults have seen a triumph of reactionary principles of blockade. The new definition imposed by Great Britain on her reluctant antagonist was as follows :—" Celui où il y a par la disposition de la puissance qui l'attaque avec des vaisseaux arrêtés ou suffisamment proches un danger évident d'y entrer." There is but the change of a little conjunction, but the change is an important one. Lord Grenville, in his great speech of 1801, acknowledges that, by this "minute change" of a word, the framers of the convention intended to establish, in their full extent, the principles which Great Britain always had maintained on

the question of maritime blockade—principles which the article as it stood in the neutral conventions was intended completely to subvert. In the debate, of which Lord Grenville's speech forms part, the English Lord Chancellor pronounces a grave opinion that the "minute change" was sufficient to effect its object; nor can foreign jurisconsults be justly blamed for laying stress on an alteration which was confessedly designed to be unsatisfactory to the Continent. By it the stricter law is rejected, which would have made for ever impossible a "blockade by cruisers," still more, a "paper blockade" itself; and have prevented the unseemly contest of five years later, between England and France, as to which could injure most illegally the commerce of its rival and enemy. Napoleon's Berlin decree of 1806 was, beyond all question, a flagrant violation of theories, for which France herself had contended, and which are now recognised by all civilized nations. It was itself a "*blocus de cabinet*" of a most futile and illusory nature. But the Berlin decree was not entirely unprovoked. In the preceding May the English Cabinet had proclaimed the blockade of 300 marine leagues of coast, stretching from the mouths of the Elbe to Brest; and though nominal orders were given simultaneously to make the blockade effective, Napoleon with reason complained, that 300 marine leagues of coast could not have been blockaded by our then available forces, even had orders been given several months before. As the Berlin decree professed in its preamble to be a retaliation for the Elbe and Brest blockade, the subsequent famous "Orders in Council" professed to be justified by the intolerable Berlin decree. Both nations have to blush for the miserable war of "paper blockades" of that date. Instead of heaping reproaches on one another, it would be better if writers in England and in France agreed to forget and to forgive a series of illegalities so disastrous and so unprecedented.

It would be unjust and inaccurate to suppose that English law justifies the

delusive fiction styled a "*blocus de cabinet*," or "paper blockade." All that our doctrine of blockade can be charged with is that, started from obscure principles, it notoriously justifies "blockade by cruisers," (thus incidentally opening the door to many abuses), and lays down certain arbitrary rules which, though less important, are still vexatious enough to neutral commerce. English lawyers, for example, have been in the habit of considering that a diplomatic notice of blockade is a genuine part of the ceremony, and, at least, establishes a *prima facie* presumption in favour of its validity. Vessels starting after such public notice for the beleaguered port, unless they are vessels coming from a very distant country, by the very fact of starting are held to violate the blockade. A storm may drive off the blockaders, or they may retire to provision or refit their ships, without the right of neutrals to enter being thereby revived. Such regulations are not in accordance with either the theory or the practice of most other nations. Diplomatic notice of blockade the French regard in its true light, as an international courtesy which neither dispenses with the fullest proof of the effectiveness of the operation, nor with *special* notice to the neutral ships that approach the blockading fleet. In their war with the Argentine Republic, the French Cabinet acted on this principle, and released a vessel captured by a French man-of-war, without a special warning. Count Molé, in his despatch of 20th October, 1838, writes as follows:—"M. N. confond ici deux choses très distinctes : la notification diplomatique qui doit être faite du blocus aux puissances neutres, et l'avis que les commandants des vaisseaux employés à le maintenir sont toujours tenus de donner aux navires qui se présentent sur les lieux. Il paraît croire que l'accomplissement de la première formalité dispense nécessairement de la seconde, qui deviendrait ensuite superflic... Une telle manière de penser est contraire aux principes ordinaires du droit maritime." The French treaties concluded recently with Brazil,

Bolivia, Texas, Venezuela, and the Republic of the Equator, ranging over a period from 1828 to 1843, contain instructions couched in the same spirit. There can be no reasonable doubt that, in respect of blockade "by cruisers," of diplomatic "notice," of "special notice," and of other details branching out of this part of the question, England may be broadly said to be at variance with the rest of the naval world.<sup>1</sup>

Having hitherto been the advocates of belligerent as well as neutral rights; —having—as we do not doubt, in the absence of evidence to the contrary—even so late as the Congress of 1856 refused to allow the difficulty to be settled in the interest of neutral powers, England cannot now, with seemingness, insist on forcing down the throat of America an interpretation of the law of blockade against which we have always openly or tacitly protested. We may take it for granted that the American blockade is nothing much better and nothing much worse than a blockade by "cruisers." For a blockade by cruisers it is tolerably effective. In estimating its efficiency allowance must indeed be made for the many ships which would break the blockade, were they not unwilling to run a risk, which for anything they know may be a slight one. Yet, without doubt, the large ports along the coast, and most of the creeks that communicate with them, are closed virtually to general commerce; and if they are not hermetically sealed, it does not lie in our mouths to be too inquisitive or strict. America certainly ought to do more than cruise off the Southern coast if she wishes to be consistent with herself. Her own official documents are a testimony against her. On July 5th, 1799, Mr. King, United States' Envoy at London, writes thus to

Mr. Pickering, Secretary of State:—"My object has been to prove that there can be no effectual blockade, without a competent force stationed or present at or near the entrance of the blockaded port." On May 23d, 1799, Mr. King warns Lord Grenville that "the presence of a blockading force is essential to constitute a blockade." On February 4th, 1844, Mr. Smith, Secretary of State, informed Commodore Preble, then blockading Tripoli, that "the trade of neutrals in articles not contraband cannot be rightfully obstructed to any port, not actually blockaded by a force so disposed before it as to create an evident danger of entering it." This doctrine, proclaimed by the United States so early in their national career, they have never abandoned until now. They are unwise to abandon it even under the pressure of a gigantic civil war. But if America cannot properly defend her "blockade by cruisers," neither can we demur to it, unless its defectiveness be more glaring than it has been shown to be. Doubtless there are Admiralty decisions to the effect that an occasional cruiser appearing off a port does not constitute a blockade, any more than one swallow makes a summer. Still, we have contended too stoutly against the views of the "armed neutrals" to permit of our forming ourselves, in company with France, into that thing so hateful to us of old—"an armed neutrality." Lord Malmesbury and the Tory organs find themselves in a dilemma. They are anxious to precipitate the separation of North and South, but they are equally anxious that we should relax nothing of our old belligerent theories. We do not agree with them. For the present, we ought not to bear ourselves impatiently towards an exaggerated doctrine which in other days we refused distinctly to sacrifice, when it was to our benefit to retain it. But, for the future, warned by this experience, let us accept a wider view of blockades and the rights of neutrals in general. The true theory of blockade has not yet been advocated in England; but, as it is one which is

<sup>1</sup> The Danish Government's definition, according to its order of 1st May, 1848, steers midway between the definitions of the Anglo-Russian Convention of 1801 and of the armed neutralities of 1780; and is,—"est regardé comme port bloqué celui devant lequel un ou plusieurs vaisseaux de guerre sont stationnés de manière que nul bâtiment ne puisse entrer ni sortir sans un danger évident d'être amené."

for the interests of civilization and commerce, it must also, we venture to think, in spite of Lord Malmesbury, be one for the advantage of ourselves.

The deep sea—we submit with all deference to received opinions—is, indeed, what foreign writers seek to make it, the neutral highway of all nations. It cannot be occupied or conquered, because human science, as yet, is unable to appropriate and farm it, though the day, perhaps, may come when man's labour will make vast portions of the now barren sea productive as a garden. But by a justifiable fiction of international jurisprudence, the waters within a certain distance of the coast are regarded as subject to the dominion of man. A naval force which invests a port or territory conquers and takes possession of the jurisdictional waters of the coast in the name of the belligerent sovereign, so far as the investment reaches. The new sovereign acquires thereby a right of sovereignty within the limits of the conquered waves. In virtue of this right he may prohibit neutral transit, or impose on it such regulations as he chooses; but, the blockading force once gone, the waters revert to their original owners, and the natural privilege of neutral intercourse revives. For a blockade can only be, at best, a temporary interruption of the ordinary and natural right of neutrals to trade with all the world. With the traffic that comes and goes on the broad and free ocean the blockaders have no authority to interfere. Their right is confined to the occupation of such waters as it is possible for man to occupy and make his own. A blockade is a naval investiture and siege carried on within these latter. During siege, the necessities of war compel the suspension of all communication with the beleaguered spot; and those who choose to attempt to raise the siege by traversing the conquered strip of waters must take the consequences. "They are of the party of the 'enemy,'" says Grotius, "who supply 'him with what is necessary in war';" and it is impossible to say that communication with the outer world may not

be a necessity to a besieged town. The neutral who gratuitously violates the cordon of blockade may be considered as having gratuitously interfered in the hostilities to befriend the besieged.

We have said that a blockading force takes possession of the blockaded waters so far as the possession reaches. How far over the jurisdictional waters of the invested territory does the blockading fleet extend the dominion of its flag? The whole question of the effectiveness of blockades seems to depend upon the answer. No satisfactory reply, however, is returned by most writers on the subject of blockade. Some French authorities contend that a fleet can only take possession of the stretch of water within gunshot of its artillery. We cannot accept so strict a limitation. The narrow theory in question rests, no doubt, upon the analogy of the international rule, that the dominion of the sovereign of the shore extends no further than gunshot from the shore itself. *Finitur dominium terre ubi finitum est armorum vis.* But the analogy must not be taken to be more exact than it really is. A stationary fort, or a battery mounted on the land, may justly be said to dominate those waters only which are within range of its cannon. But a ship is a floating, not a stationary battery, and its motive power must be taken into consideration when we wish to measure its possible dominion. Doubtless we may accept the maxim, *Finitur dominium ubi finitum est armorum vis.* The error lies in supposing that the offensive power of a man-of-war is as limited as the offensive power of a fort upon the shore. The introduction of the use of steam into the royal navies of the world renders the distinction between floating and stationary dominion still more important. A vessel which attempts to break blockade cannot be said to be safe from the cannon of an armed cruiser, because at the moment of the attempt the cruiser is not within gunshot. Allowance must be made for the celerity with which the guardian of the blockade can sail down and cover the entrance of the blockaded port.

No rigid law, indeed, can be laid down by which to measure the necessary range; but it is a range which, in each particular case, may easily be ascertained. The question should never be whether, looking to the vague possibility of capture from a force which infests the adjacent ocean, a ship can venture to approach the mainland with the idea of attempting to break blockade. The true test is whether, in view of the force that is besieging the very spot, a vessel may hope to run for land without the reasonable certainty of being intercepted. If, indeed, the right of blockade is to be permitted to base itself on the monstrous assumption that belligerents may lawfully interfere with neutral traffic wherever they are strong enough to do so, it is difficult to say where a line can be drawn between a blockade that is effective and one which is the reverse. But a belligerent has no right to infest the seas, under the pretence of blockading the contiguous mainland. One foreign writer, and one only, Lucchesi Palli, has ever maintained seriously the proposition put forward by Napoleon I. in the preamble of his Berlin decree, that none but strong places or fortresses can properly be subjects of blockade. The notion is a blunder, for if it were well-founded a belligerent might disarm his enemy's fleet by dismantling all his own defences. But, blunder as it is, it points to a just conception of the basis of the true theory. It is possible, certainly, to blockade coasts as well as harbours, because the blockade of a coast may have its military uses as well as any other; and no objection can be taken to the Anglo-French proclamation of 1854, which recognises coasts as fit subjects for the exercise of this belligerent privilege. But blockade, to be justifiable at all, should be a military operation, and not merely an annoyance done to commerce.

Commerce is free to all, and on the belligerent who disturbs it lies the onus of showing that he disturbs it lawfully. If blockade is a temporary interference with the natural right of neutrals, and rests on a *de facto* occupation, no unnecessary latitude can legally be allowed

it. *Tantum occupanti jus conceditur quatenus occupat.* Beyond the strictest limits of occupation the *status ante* revives, nor is the presumption in favour of blockade, but of liberty of commerce with the shore. If this be so (and we submit that it is so), a ship is fully at liberty, even after official notice of blockade, to visit the blockaded spot, and to assure herself that the official notice is not an idle menace. Lord Stowell's suggestion that the notice of a foreign Government is presumptive evidence of the fact which it asserts, will not satisfy this generation. Nor until special notice and warning from the blockading fleet should a vessel so approaching be seized and carried into port for punishment. In all these branches of the subject the law, as advocated by continental jurists, seems more unexceptionable than that put forward by our own.

But it is not merely because the theory of blockade, which is above suggested, can be grounded on intelligible legal maxims that its claims to consideration mainly rest. International law cannot be deemed to be a Divine revelation descended straight from heaven. It is, at best, a system passing through a very empirical phase, and built up by applying to the intercourse of a so-called family of nations abstract ideas which have been obtained from generalizing on phenomena of totally different kind. A doctrine of blockade more congenial to neutral commerce is chiefly to be advocated because the change would be a benefit to the world, and in particular a benefit to ourselves. Our statesmen have remembered long enough that England, when she is at war, is the greatest of belligerents. It is time they should remember also, that when she is at peace she is the greatest of neutrals. The interests of the most important trading nation of the age cannot really be at variance with the interests of neutral commerce. The abolishing of privateers was a piece of international legislation which the Congress of Paris carried out in the interests of universal trade; but no country more benefited

by the concession than our own. The *Golden Maritime Law* which should guide us, both as to blockades and as to privateers, may be thus laid down. England's interest is, that each nation's power of inflicting damage on its enemies' trade, should be in exact proportion to the regular force which it can bring to bear in war-time on a given spot. Irregular warfare may be, perhaps, for the benefit of those whose naval power is less overwhelming than ours. But England is chiefly concerned to see that the greatest possible advantage shall be reserved for the country that has the most considerable fleet. To limit as narrowly as possible the right of blockade; to put an end, if possible, to "blockade by cruisers;" and to insist upon the doctrine of blockade by an investing force, is a policy which would increase rather than diminish our naval predominance. It is astonishing that this truth should not be more generally seen. If the Continent in its wisdom were to so state further, and to urge that no port should be held to be blockaded off where less than a dozen or even twenty ships were stationed, we should gain, not lose, by the proposition. We can better spare twenty ships than anybody else for the purpose. We should be better off than other maritime powers in proportion to the facility with which we could detach the requisite number of vessels on such a service. The result would be that the privilege of blockading would virtually pass altogether into English, and into French hands.

If the American civil war teach us to examine the principles on which blockade should rest, and to abolish "blockade by cruisers," it will have taught us a valuable lesson. The day will perhaps come when all of us will acknowledge—what in our opinion is certain—that by enforcing strictness of blockade, and by admitting the inviolability of enemies' private property at sea, as we have admitted that of neutral property at sea, England and civilization will both be gainers. We are far from approving of intervention in favour of the South.

Evidence is wanting to show that the blockade of the South coast is so completely a paper blockade as to justify us in protesting against it; and we are not the proper people, nor is this the proper time perhaps, to raise the question. A great deal of denunciation has indeed been expended on the sinking of a stone fleet at the mouth of Charleston harbour. If the harbour was thereby destroyed or permanently injured, the measure would be a barbarous one, against which all Europe might consistently and properly protest. But engineers know that it is extremely difficult to block up a channel by sinking obstructions at its mouth. In all probability, the bottom off Charleston harbour is composed of alluvial soil. The action of the outward current in such case will scoop out the bed of sand or mud from beneath the sunken ships. It is likely (judging from what is usually the case with wrecks) that they will in time disappear entirely, and even the very weight of stone which they carry will increase the rapidity of their disappearance. If this view be correct, the sinking of the stones is not an outrage on the law of nations, though it is a severe and unusual measure. We are not of the number of those who think that America's difficulty is England's opportunity. It would be both unjust and unwise to interfere unnecessarily with the naval operations of the North; and a cogent case for interference has not yet been established, either in respect of the stone fleet or of the blockade. But should the question of effective blockades be raised at all, we trust it will not be dismissed again until it has been more satisfactorily settled.

The war itself progresses—slowly, but surely—towards its turning-point. General Maclellan's plan of campaign has apparently been conceived on a scale proportioned to the vastness of the contest. The defeat and death of Zollicoffer at Somerset, and the landing of the Burnside expedition, have been two heavy blows dealt at almost the same moment to the Confederate cause and to the spirits of its supporters. We may

look for a series of victories still more considerable than those which have recently been gained. The new Secretary of War, Mr. Stanton, brings to bear upon the conduct of the war an honest and industrious mind ; and, at all events, the loss of Mr. Cameron will be a gain that must be felt. It is true that specie payments have been suspended, and that the national exchequer is empty. In a smaller country which was taxed already as far as it could bear, the suspension of specie payments would be a serious matter. But it is very different in the case of a nation which populates a continent, and whose central government has hitherto drawn from the population a revenue suited only to a peace establishment. The national treasury is empty thus early in the war, not because the North is exhausted, but because taxation in the North has not been, and cannot easily be put on a war footing. A Government loan, or heavy taxation, would have been the natural method of supplying the deficiency. Unfortunately Government credit is always at a discount in the commercial world of America, owing to the fact that repudiation is at all times possible, and heavy taxation is never welcome to free and enlightened citizens. In such a case, the suspension of specie payments is simply equivalent to contracting a forced loan. The measure may be unconstitutional, or, as it is called by English writers, profligate ; but it does not prove that the country is on the verge of bankruptcy. If America can support a war by taxation, she can also support depreciation of the currency within reasonable limits. Commercial confidence is not a bit more likely to be disturbed by the idea that Government will go on issuing paper money too long, than it would in any case be by the idea that Government might some day refuse to pay Government debts ; and it would certainly seem that the American currency can well afford to take its chance of depreciation, if commercial confidence is not shaken by wanton extravagance. On the one hand, the war suspends to

a great extent the foreign trade, which is ordinarily conducted without any important transfer of specie. On the other hand, the war converts into combatants an important part, and reduces to idleness a still larger part of the population, none of whom, accordingly, pay in productive labour or in manufactures for the subsistence and the supplies which they require. The result is that more specie payments are necessary than would be necessary in a time of peace. There is a dearth in the country, not so much of wealth as of a circulating medium. The gold is drifting westwards, into the pockets of the western agriculturists. It is at a premium near to the seaboard, because there is not enough of it in the manufacturing States for purposes of internal exchange, and because the supply of it was only adapted to the requirements of a period at which a great deal of national trade was carried on without the assistance of a circulating medium at all. Whatever the significance of the financial state in which the Cabinet of Washington finds itself, the South is in a still sorrier plight. Nor do the Southerners appear to support their condition with cheerfulness. The tone of the Richmond press is extremely remarkable. The Confederate journals write in a spirit of discontent and despair of the prospects of successful resistance. It is reasonable to suppose that there is a large Union party in the South, as there seem to be Southern sympathisers even in the Northern capital. A few more Southern reverses, and their voices will be doubtless heard. Hitherto we have had little more than the prelude to the real contest. It is true that the North have undertaken to re-conquer a country as large almost as a continent. But it is also true that it is as easy to conceive of the conquest of the South as of any terms of peace which can be acceptable to both sides at once. What frontier line can possibly be devised to satisfy both belligerents ? There are some quarrels which must apparently be fought out, because a compromise would be in reality a victory for one of the two combatants.

## ROYAL DEATHS.

THE PRINCESS AND THE PRINCE. 1817—1861.

BY THE HON. MRS. NORTON.

THE first lesson we try to teach our little ones in the nursery is, that there is no royal road to learning; the lesson we preach to children of a larger growth is, that there is no royal road to happiness. In vain! Still do the busy childish brains weave for themselves pictures of princes and princesses in golden crowns and glittering raiment; still does the maturer mind dream with a half-repining sigh of those lilies in the garden of Life, who "neither toil nor spin;" whose days are days of pleasantness, and their paths paths of peace; who reap where they have not sowed; and to whom the delights of existence offer themselves without struggle or sacrifice.

Seldom does the converse of this proposition force itself on our notice; seldom does the often-preached equality of human trial become so apparent that those who run may read the lesson. But when it does come, it comes with the storm of sorrow: in the cloud and the lightning.

Death is the same in itself to all mankind, and the spectacle is always solemn and admonishing; but Divine Providence, sometimes in the course of ages, sets it forth in such strong contrast to all that is held great and good to the human being in possession and expectation, that the most careless heart is shocked into contemplation.

Such a lesson has lately been read to us. The grief, the unutterable grief, of the highest lady of our land has passed with an electric thrill to the meanest of her subjects. Hearts ache and eyes fill with tears at the bare image of her sorrow; and to the younger of the generation, now in its noon, the blow that has smitten the royal wife and mother seems without example!

It has nevertheless its parallel—a pa-

rallel so close in all its details of suffering, that the wonder rather is, how such events, happening within the memory of living men, and having filled so many with wonder and anguish, should fade like a dream, and vanish like a sound.

The death of the Princess Charlotte is vaguely accepted by the rising generation as a national loss that was greatly lamented; but it is to be doubted if the record of her brief life has obtained a visible standing place amongst us, even since the revival of its main incidents by the publication of gossiping memoirs of the period. They, however, who recollect these incidents, know how close is the resemblance between the blow which shattered the happy home of Claremont in November, 1817, and that calamity which has lately made desolate the royal halls of Windsor and cast a gloom over the English Christmas of 1861. It is because this parallel lies on the dim border land which divides our own times from the region of written history, that we would briefly recapitulate a story which, if invented, would have seemed a most touching romance, and, being suffered, was a miserable reality.

The Princess Charlotte, daughter of the Prince Regent, afterwards George IV., was born on the 7th of January, 1796; an English princess, but with much German blood in her veins; of that House of Brunswick which claims descent from Albert Azo, Marquess of Tuscany, who, in 1040, married the heiress of the first Welfhs or Guelphs, Earls of Altorf in Swabia. The offspring of alienated parents, Princess Charlotte's childhood was disturbed by domestic feuds and anxieties, of which she could have no comprehension; and her youth was made at once restless and dull by the consequences of these

quarrels, and the jealousy which her father early conceived of the political importance of his heiress. Her candid, impulsive nature was manifested even as a child, and won the love of those around her. Bishop Porteus records with delight how the little princess, then but five years of age, on being told that, when she went to bathe at Southend in Essex, she would be in his diocese, dropped on her knees before him and begged his blessing; "which," says the good prelate, "I gave with all my heart, and many secret prayers." The reverential child grew into a pious woman, impulsive to the last, but gifted with a keen intelligence and a noble cordial nature, which combined to steer her past many a shoal, and which gave her, in spite of occasional rashness, power to choose wisely and well who should be intimate among her few companions, her scanty stock of friends; among the most distinguished of whom was Miss Mercer Elphinstone, Baroness Keith and Nairne, wife of our present French Ambassador, Count de Flahaut.

She was but eleven, when an inquiry, miscalled the "Delicate Investigation," was made as to the conduct of her mother, the Princess of Wales; and though that inquiry ended temporarily in favour of the party accused, though hard swearing failed to satisfy Ministers that the false profligate husband had a wife as profligate as other ladies who were his habitual associates, though she was reinstated and received by good old George the Third, still the event disturbed all the relations subsisting between mother and child, and was the first assault in that "war to the knife" which could have but one termination between a man without honour and a woman without dignity, even had she been a better woman than she was.

Perhaps no part of Princess Charlotte's character is more touching than the efforts she made to offer a divided duty to both her parents—the pity and the love with which she yearned to her mother, and the submission she trained her naturally impatient spirit to show to her father.

Her personal appearance and attractions are thus described by a contemporary writer:—"In person she was neither too tall nor short, about the middle size, rather inclining to *enbonpoint*; but not so much as to impair the symmetry of her form. Her complexion was beautifully fair, her arms delicately rounded, and her head finely placed. There was a mingled sweetness and dignity in her look. She had a full intelligent eye; and when she was engaged in conversation, much liveliness appeared in the expression of her countenance. She had very little of the vanity which is said to be peculiar to her sex—that of exterior ornament and dress; she never indulged in it either before or after her marriage. She aimed at little beyond neatness; there was no incumbering superfluity of jewels to be seen upon her person: in short, nothing that distinguished her from one of the female nobility in splendour of apparel. Always elegant, modest, and refined, she had nothing of fashionable life about her; but a lofty and generous sense of the duties imposed upon her by her elevated rank. She was an excellent musician; she performed on the harp, the piano, and the guitar, with uncommon skill. Her voice was not powerful, but sweet, and scientifically modulated: she had a most accurate ear, and a brilliant execution. She spoke French, German, Italian, and Spanish, with considerable fluency; and her accomplishments comprehended not only the poetry and classical writers of her own country, but a considerable acquaintance with ancient literature. Warmth of feeling, great elevation of spirit, and openness of heart, marked her conduct through life: she was justly beloved by all who had the good fortune to know her; and when she found herself blessed with the husband of her choice (and that choice still reflects great honour upon her memory), she more than once declared that she was the happiest woman in her grandfather's kingdom."

Such was the Princess Charlotte of

England, then the apparent heiress of the throne of these realms ; and perhaps the description of the husband she selected cannot be better placed than immediately under her own picture. Few will read it and not also think of the Prince Consort, his nephew, so lately taken from us !

"In his early youth, this prince manifested an excellent understanding, and a tender and benevolent heart. As he advanced in years he displayed a strong attachment to literary and scientific pursuits, and even at that time all his actions were marked with dignified gravity and unusual moderation. His propensity to study was seconded by the efforts of an excellent instructor ; and, as he remained a stranger to all those dissipations with which persons of his age and rank are commonly indulged, his attainments, so early as his fifteenth year, were very extensive. His extraordinary capacity particularly unfolded itself in the study of the languages, history, mathematics, botany, drawing, and music ; he sang beautifully, and had one of the finest tenor voices in the world."

The convulsion which, in 1806, shook the north of Germany had been attended with consequences peculiarly calamitous to the House of Coburg. In the autumn of that year, when the French approached the Saxon frontiers, Duke Francis, who was in very ill health, retired with his consort from Coburg to Saalfeld ; and Prince Leopold, then but fifteen years old, was the companion and support of his infirm father. The French appeared before Saalfeld ; the castle was stormed ; and the ducal family exposed to all the dangers and horrors of that disastrous battle, which cost Prince Lewis-Ferdinand of Prussia his life. This was more than the constitution of Duke Francis, already so much impaired by disease, was capable of supporting ; he sank under the accumulation of misfortunes, and died in the beginning of December. Bonaparte then seized the Coburg possessions, which were not restored till the peace of Tilsit.

The vicissitudes to which Leopold's

house was exposed from French hostility seem only to have contributed to preserve the purity of his morals ; and they certainly had a most powerful influence in the development of that rare moderation, that ardent love of justice, and that manly firmness, which were the predominant traits in his character.

In his campaigns, and in the field of battle, where all false greatness disappears, Leopold gave the most undeniable proofs of courage, and of that clear intelligence and unshaken fortitude which are essential in a warrior and a prince. If we add that this young warrior was of most admirable personal beauty, though of a somewhat dark and melancholy countenance, Princess Charlotte's choice will not appear extraordinary.

When the princess, in 1814, attained the age of eighteen, the Prince Regent, anxious to obtain for her a suitable alliance, fixed upon the Prince of Orange. After some serious negotiations, however, the match was broken off. The reason assigned in Parliament was the objection entertained by the princess to a residence in Holland ; the reasons assigned by her friends were Russian intrigues, and her own distaste for her young suitor. That he did not regard her with similar indifference, is proved by the fact that, when he was obliged to return her miniature with other presents, he secretly caused a copy to be taken, which is still preserved in the Palace in the Wood, at the Hague.

She had already at this time made acquaintance with the Prince Leopold ; but, the Regent disapproving of the degree of welcome she seemed willing to accord him, the prince returned to the Continent. Displeased with the failure of the Orange match, and suspicious of the influence of those around his daughter, the Regent planned and executed a kind of domestic *coup d'état*, changing at once all the ladies of her household. The Princess Charlotte, startled and irritated by this exercise of power, which she conceived to be the forerunner of yet greater severity, hastily fled her home at Warwick House,

and went, in a hackney-coach, to the residence of her mother, at Connaught Place ; whence she was reconducted, in the dawn of a summer's morning, by the Duke of York and other great personages. The measures of the Prince Regent towards his daughter caused an unfavourable impression ; and in the House of Lords the Duke of Sussex demanded of Lord Liverpool explanations as to the position of the princess and the degree of freedom which she enjoyed. The minister somewhat haughtily replied, that the Regent was the father of her royal highness, and that, as such, he had a right to adopt what measures he pleased with respect to her. Two months after these disputed arrangements the Princess of Wales left England, taking a tender and, as it proved, a final farewell of her daughter. During the summer the health of the Princess Charlotte visibly failed, nor can it be doubted that, like many a humbler heroine, she was secretly pining for the object of her own preference. Her love for young Leopold of Saxe-Coburg had been love at first sight, but it was one of those cases in which a sudden choice has been amply justified by subsequent happiness. The physicians prescribed sea-bathing and change of air, and the patient went to Weymouth ; whence she returned in improved health, and appeared in May, 1815, at the Queen's drawing-room.

The Regent, in the course of this year, became convinced that his daughter was not to be weaned from her choice, and at length, in February, 1816, despatched a messenger to Berlin to invite Prince Leopold's return to England. On the 21st of that month he landed at Dover, amidst the acclamations of the people, who were already aware of the feelings of their beloved princess. On his arrival at the Clarendon Hotel he was waited upon by Lord Castle-reagh, the Secretary of State for Foreign Affairs ; and the next day, by special invitation, he joined the Regent at Brighton. On the 10th of March the consent of H. R. H. was announced to the Privy Council convened there ;

on the 14th, to both Houses of Parliament ; and on the 15th the House of Commons voted the royal pair 60,000*l.* a year and a splendid outfit. They were married on the evening of the 2d of May, at Buckingham House, the prince wearing the uniform of an English general, and his beautiful bride a dress of silver lame, with a wreath of rosebuds and leaves, in brilliants, round her head ; and a little before midnight the newly-wedded pair arrived at Oatlands Park, lent them by the Duke of York ; now a popular hotel. Camelford House had been allotted to them in London ; a confined and inconvenient residence, which in the autumn of that year they gladly left for Claremont, a home of their own selection, purchased for them by Parliament. Here they lived a retired life, congenial to their tastes and mutual love—a life in all respects the exact parallel of the pure domestic existence of our Queen Victoria and Prince Albert. They were never separated, except when the Prince went out to take the exercise of shooting in the morning ; and during his absence it was the constant custom of the Princess Charlotte, with her own hands to take the prince's linen out of the drawer, to air it, to fold his cravat, and see that hot water was ready for his use ; and even to prepare some little refreshment, such as she judged he would like, against his return. In their social walks, whether in the village or the garden, they generally walked arm in arm ; and if they stopped to rest, whether in the arbour or the alcove—in the words of Watts—

“There they would sit, and pass the hour,  
And pity kingdoms and their kings,  
And smile at all their shining things,  
Their toys of state, and images of power.”

When the weather or other circumstances kept them within doors, their employment was chiefly reading. Both took delight in studying the history and constitution of the country of which she might naturally expect to be one day the sovereign. In this study she is understood strongly to have imbibed those liberal principles which

raised her family to the throne, and on which alone it can be properly supported. History was varied with poetry or miscellaneous subjects; and the princess appears to have taken peculiar pleasure in perfecting the prince in a complete and critical knowledge of the English language, which he spoke accurately, with more distinctness and deliberation than is usual with us.

The Royal couple left Brighton and the brilliant festivities of the Regent's Pavilion in order to keep Prince Leopold's birthday in their tranquil home. On the birthday of the princess herself (the last that she was permitted to see), the humble inhabitants of Esher illuminated their village abodes in her honour. She kept that day by distributing a hundred pounds in charity, and passed most days in familiar intercourse with her poorer neighbours, while her wayward mother wandered to and fro on the Continent, seeking to fill the void of her wasted life with vulgar pleasures, and the profligacy of her father's tawdry court roused a just indignation among all the better thinking of his people. In illustration of the perfect matrimonial happiness of the young couple is recorded the gentle clerical jest of their chaplain, Dr. Short, who sent them a fitch of bacon on their marriage anniversary, suggestive of Dunmow and its time-hallowed custom. Little they thought that no other anniversary would find them together to share earthly joy or earthly sorrow. That pleasant May went by, and pleasant June, and the autumn found them still living the same life of serene contentment: doing good; striving by employment to lessen the depression of trade, and by charity to counteract the effect of "famine-prices" consequent on the failure of the harvest. Tranquil, happy, hopeful, loving—a model home! The year before, they had been in London; at the famous "Nuptial Drawing-room," held in their honour, attended by nearly three thousand persons, many of whom, despairing of getting early to their carriages, walked on the grass-plot in the palace yard, "such splendid dresses parading in the open

air as probably never had been beheld there before." They had attended theatres and operas in state, and heard the exulting cheers of a welcoming people. They had been called upon to receive and answer loyal addresses, amongst which was the memorable address of congratulation from the county of Kent, "signed by five thousand persons and measuring twenty yards." But this year all was different. The princess "was taking care of herself:" waiting for another precious life; waiting for the seal and fruition of love; waiting for her baby: all England waiting and hoping with her: the busy nurse gossiping and wondering at the love and simple habits of the royal pair: and the pair themselves taking their quiet walks and drives together; visiting the farm and overlooking improvements; till the last Sabbath the princess was permitted to see rose in brightness over Claremont, and late on Monday messengers were despatched in various directions to summon the proper officers of state to be present at the birth of a royal infant.

That infant was born DEAD! Every effort was made to restore it to life, but in vain. The young wife and new-made mother humbly said, "It is God's will" when the news was broken to her; and the young husband ejaculated with a sigh, "Thank heaven, the princess is safe!" But soon a dreadful change became apparent: the nurse who had left the room in obedience to her kindly order, "Pray go and get your supper, you must be quite exhausted; Leopold will take care of me meanwhile," was recalled by Prince Leopold, saying he did not think the princess quite so well; and in another hour the blue eyes, so full of vivacity and tenderness, fixed a dying gaze on her husband's face, and the hand pledged to him at the altar lay cold and stiff within his own.

The impression made on a people prepared only for exultation may be gathered from the accounts of the time.

"We were in the most awful suspense about the dreadful news," says one, writing from Bristol, "till the arrival

of the London mail. I was on the Exchange when it approached : the sound of the horn seemed to strike terror into every soul. A great crowd was collected, who then instantly rushed round the mail, inquiring of the guard if the news were true? He replied, 'Both are dead.'—'Both are dead,' was reverberated by the crowd, and the flash spread like lightning. Dejection marked every countenance ; and, I think it is not too much to say, that 'tears gushed into every eye.'

Then came the wail of sorrow from a whole nation in bereavement : and the bulletins of a forgotten anguish appeared, as others have appeared this melancholy winter :

"CLAREMONT, Nov. 7.

"The Prince Leopold has had a bad night, but is more composed this morning."

"CLAREMONT, Nov. 8.

"The Prince has had some sleep in the night, and is as well as can be expected this morning."

"CLAREMONT, Nov. 9.

"The Prince Leopold had a calm night, and is, this morning, rather better than yesterday."

On the twelfth, however, it was announced that His Serene Highness's indisposition hourly increased, that he refused consolation, and suffered no one to approach him. He passed all his time absorbed in thought, and seemed absent to everything, except such objects as recalled to memory his departed consort. The most inconsiderable articles once possessed by her were endeared to him by recollection. The bonnet and cloak, which she wore in their last excursion, were kept constantly before his eyes. They were hung by her hands upon a screen in the sitting parlour, and there they remained ; the prince positively forbidding any person whatever either to remove or even to touch them. Her watch still hung where she herself had placed it, while yet time was measured to her by earthly computation.

The savage and heathen ceremony of embalming, which was performed on the princess's body, greatly shocked and agitated the widowed husband, and was severely commented on by a portion of the press.

The time of the funeral was then fixed: the day "announced for the interment was one of most solemn and devout observance, not only throughout the vast Metropolis, and amongst all sects and denominations of Christians, but throughout the whole realm of Britain.

"No awful ceremony of this kind, on the demise of any of our rulers, or of any branches of their illustrious families, was ever, we believe, marked by so general and unequivocal a testimony of unfeigned sorrow and regret. The parochial churches and the different chapels, both of the Establishment and of Dissenters, covered their pulpits, desks, and galleries, with the emblems of mourning. The shops were shut, ordinary business suspended, and most private houses had their window shutters entirely closed. All that custom ordains as the signs of external sorrow, prevailed in the public streets, in the parks, and in the most retired and obscure parts of the Metropolis. Among the inferior classes, there were few who could find the means of procuring any black, that did not do so. The charity children wore signs of mourning. The Courts of Law, the Custom House, the Public Offices, the Royal Exchange, &c., were closed. Orders were sent to all the dockyards, to prohibit the usual transaction of business. British vessels, and those of all other nations, hoisted their colours only half-mast high ; and on the river Thames, and at the different sea-ports, minute-guns were fired all night. Even the gambling-houses, which were at that time a disgrace to our nobility and to the national legislature, thought it necessary to suspend their debasing work on the day of the funeral of the Princess Charlotte : the master of one of the most famous of these infamous houses of ruinous resort, issuing the following order :

"Gentlemen are informed, that, in consequence of this being the day appointed for the burial of Her Royal Highness the Princess Charlotte, as a proper mark of respect to her beloved memory, play will not begin till to-morrow at ten o'clock."

"The tolling of the great bell of St. Paul's, accompanied by the bells of all the other churches, excited much feeling in the evening, among the mourning crowds assembled on Blackfriars-bridge; the solemn effect being increased by the stillness of the river, and by the soft clearness of the moonlight. At the gay watering-places baths, libraries, and shops were shut, and the promenades deserted. Ships of all nations, American, French, Russian, Danish, Swedish, &c. joined in paying the last tribute of respect to departed greatness, by having their flags in mourning. In the evening, at the hour when it was understood the body of our lamented Princess would be consigned to the everlasting silence of the tomb, minute guns were fired from the piers. The silence and beauty of the night, broken only by that sound and the distant roll of the waves breaking on the shore, added sublimity, if possible, to the solemnity of the occasion.

"The removal of the bodies of the Princess and the Royal Infant from Claremont was fixed for six o'clock on Tuesday evening, the 18th. At the appointed time, the coffin, containing the corpse of the infant, and the urn, were brought out and placed in a mourning coach; which Sir Robert Gardiner and Colonel Addenbrooke entered. The hearse then drove up; and the state-coffin, containing the remains of the Princess, borne by ten men, was brought out and placed within it. Before half-past six o'clock the procession began to move, preceded by upwards of thirty horsemen, three a-breast, in full mourning; the whole attended by a party of the 10th dragoons. Great numbers of horsemen and pedestrians followed, and the bells of the churches in the towns and villages through which it passed tolled incessantly. The roads were thronged with weeping spectators, and

every house was closed. The funeral procession arrived at Windsor shortly after midnight, at a slow foot-pace, and without flambeaux, or any other lights.

"The corpse of the infant, and the urn, were immediately conveyed to St. George's Chapel, and there received by the Hon. and Rev. Dr. Hobart. The body and the urn were then gradually lowered by a windlass into the royal cemetery; where two of the yeomen descended to receive them. They were deposited temporarily on a shelf, previously to their being placed on the coffin of the Princess. No service took place; and the most awful stillness was preserved throughout. The hearse then proceeded into the front court of the Lower Lodge, where the body of the Princess Charlotte was placed under a canopy prepared for its reception.

"The rooms that the corpse passed through were covered in every part, walls, ceiling, and floor, with black cloth; a large black velvet pall lay on the coffin, with a broad white border, reaching to the ground. Over the coffin was placed a canopy, with plumes, shadowing the Princess's coronet, and against the wall was a large escutcheon of Her Royal Highness's arms, emblazoned on satin.

"During the whole route from Esher, it had been a fine night, and the moon shone brightly all the way from Claremont till the procession reached the town of Windsor; when, in a most remarkable manner, the sky became overcast, the moon was hidden with clouds, and darkness ensued:—this sudden change visibly affected thousands of spectators, and seemed to spread an additional and unexpected gloom over the scene of sorrow.

"Shortly after eight o'clock, on Wednesday evening, the mournful cavalcade proceeded to the last abode of departed Royalty. When the procession arrived in the choir, a solemn and mournful silence prevailed. The choristers began to chant the solemn service of "I know that my Redeemer liveth;" the canopy followed, moving at a very slow pace: under this

was the Royal coffin, enveloped by the magnificent pall, which was supported by four Baronesses. Prince Leopold followed the corpse as chief mourner ; his appearance created the utmost interest—he made evident efforts to preserve calmness and fortitude, but frequently burst into a flood of tears. His Serene Highness walked along with unsteady steps, and took the seat provided for him at the head of the coffin. During the whole time of the funeral service, he preserved one fixed but downcast look towards the coffin of his beloved wife ; and never once raised his eyes to the congregation. The Royal Dukes, who sat or stood beside him, watched with much solicitude, as if they were afraid he would sink under his affliction. His distress, however, was tolerably subdued till the moment when the coffin was gradually lowered into the grave ; at this awful crisis he was alarmingly moved, though by a strong effort he seemed almost to conquer even this emotion.

"The music was the same as is usually performed at public funerals in St. Paul's Cathedral and Westminster Abbey, with the addition of Dr. Blake's favourite anthem, from the 16th Psalm : 'I have set God always before me.' The body being lowered into the vault, and the mourners standing around, the burial service was completed. Sir Isaac Heard, Knight-Garter, Principal King of Arms, then proclaimed the style of Her late Royal Highness in the usual form. In delivering this, Sir Isaac was deeply affected. His voice faltered, and he wept ; at that moment there was not, perhaps, a dry eye in the Chapel.

"The melancholy solemnity was terminated about eleven o'clock, but the Chapel and the avenues were not completely cleared until after twelve. The whole town of Windsor was full of bustle and confusion. The carriage-ways were all blocked up with vehicles of every description, and the footpaths were impassable for the multitude of spectators. Prince Leopold was supposed to have returned to Claremont almost immediately after the

mournful ceremonial ; but it is certain that, an hour after the other mourners were withdrawn, His Serene Highness was found in the vault of death, weeping over the dear remains of his beloved Charlotte ; and that it was only by a friendly violence that he could be removed. When removed from the vault, and requested to pass the rest of the night at Windsor, His Serene Highness declared his determination of immediately setting out for Claremont, saying, 'I must return to-night, or I shall never return !'

Deep was the sympathy felt for him. Deep the compassion bestowed on that object of a royal woman's love, summoned from a foreign land by love itself to a destiny as bright as earth could offer ; and when from every pulpit in the kingdom came solemn and affecting words, such as have lately been preached to us, and men and women wept alike for the dead, that Chief Mourner was not forgotten. Eloquently was it shown how the distinctions of rank and wealth vanish in these seasons of overwhelming sorrow, till there rises in the darkness and desolation of human grandeur, that meek angelic visitant, the pity of the poor ; and the words then spoken of Prince Leopold may take their place by recent inquiries from lowly lips, how our Queen was bearing her sorrow. "There is not," said the preacher, "a peasant in our land who is not touched to the very heart when he thinks of the unhappy stranger who is now spending his days in grief and his nights in sleeplessness ; as he mourns alone in his darkened chamber, and refuses to be comforted ; as he turns in vain for rest to his troubled feelings, and cannot find it ; as he gazes on the memorials of an affection that blessed the brightest, happiest, shortest year of his existence."

We have given in appendix, for the curious in such matters, the texts of some of the numberless sermons to which the occasion gave birth : nor were there wanting discourses similar to some that have lately been vehemently criticised, arguing that this Royal death was a visitation on England for National Sin ;

one of which was boldly published with a titlepage with a black-edged border, "The REAL, OR MORAL CAUSE of the Princess Charlotte's Death!"

Lastly came the discussion who should fill the gap ; and lists were published of probable and possible successors in their legal order of succession—in which, strange to say, the wife of Jerome Bonaparte and his son Jerome Napoleon stand twenty-fifth and twenty-sixth in a list of 123 ; and a jealous commentator discussed whether the English people or Parliament would ever suffer any of the family of Bonaparte to ascend the English throne, "even if they had not the young Princes of Brunswick to look to,"—and stated the watchful expectation with which the whole nation "looked to the result of the marriage of the Duke of Cambridge with a princess of the house of Hesse Darmstadt."

And then the sorrow lessened—as God has decreed all sorrow shall do, or human hearts would break under their burdens—and new marriages were made, and new hopes sprung up—amongst them the brightest and best in the person of our present gracious Monarch ; leaving only of that other day of bitter weeping the memory of the purity of a royal home, which men beheld shining beyond the atmosphere of a vicious court, as revellers staggering home from a hot drunken carouse see the cold calm stars looking out of a serene heaven. Those who in piety or philosophy muse on God's mystery in the "taking away from the evil to come," may be struck by the picture of the blind, mad, good old king, unconscious of the sorrow that shook the land he ruled over like an earthquake. But doubly struck must they be with the image hidden, in the death-vault of Windsor, from the frivolous splendour and the fierce warfare of the Regent's court. Princess Charlotte died in November, 1817. In three short years from that time, the mother she had loved, sate vainly braving degradation in presence of the assembled peers of England : on her "trial" for a love intrigue with her courier. In three short years the father, who had seen his

only child, and her child, go suddenly down into the grave, unawed and unchanged by that stroke, was spending 238,000*l.* on the fopperies of his coronation, and paying ten per cent. interest for the loan of additional jewels to make the crown of an hour sufficiently smart for him to wear. The pure young heart that had loved Leopold could not ache for a mother's disgrace. The simple and truly royal mind that found in the tranquil gardens of Claremont enough of beauty and glory—

"To lead from nature up to nature's God,"

was no longer witness to a father's folly. She died, and all England bemoaned her. She had no "Party" in the State ; for party implies division, and the love she inspired was unanimous. The "Star of Brunswick" was lamented by Southey (then Poet Laureate), in touching verses ; and she was bitterly lamented by a bereaved nation, not then so happy as to foresee that in another Princess of the same royal line, daughter to the Duke of Kent, and in another Coburg, the nation would grow to consider a faithful sense of duty, a fervent love for home ties, and a wise regard for the interests of a loyal people, the familiar and accustomed qualities of their rulers.

#### APPENDIX.

Texts of the most remarkable discourses preached on the occasion of the Princess Charlotte's death :—

In the new Gravel Pit Meeting-House, Hackney :—*Isaiah xl. 6, 7, 8.*

At the Cathedral Church of Chester :—*Job i. 21.*

At the Church of Allhallows, Barking :—*Job ix. 12.*

At Bishop's Stortford, Herts :—*1 Peter i. 24.*

At Cheltenham :—*Rev. i. 18.*

At Carlow Church :—*John xi. 35.*

At the Church of St. Mary-le-bone :—*Heb. xiii. 14.*

At Limehouse :—*Isaiah xxvi. 9.*

At Glasgow :—*Isaiah xxvi. 9.*

At Bethnal Green :—*Job xxxiv. 19, 20.*

At Colchester :—*1 Sam. iii. 18.*

At the Unitarian Chapel, Norfolk Street, Sheffield :—*Ezek. xxiv. 16.*

At Kettering :—*Psalm lxxxii. 6, 7.*

At Kettering :—*2 Chron. xxxv. 24, 25.*

At Bethel Chapel, Deptford :—*Jer. ix. 20, 21.*

At the Old Chapel, Cliff, Lewes, Sussex :—*Isaiah xl. 6, 7, 8.*

At Monkwearmouth :—*Matt. xv. 13.*

At the Church of Blandford Forum, Dorsetshire :—*Psalm xxxix. 9.*

At the Parish Church of Cople, Bedfordshire :—*Isaiah xl. 6, 7.*

At Aston Sandford, Bucks :—*Micah vi. 9.*

At Peckham Chapel, Surrey :—*Jeremiah viii. 14, 15, 16.*

At St. Martin's Church, Leicester :—*1 Cor. xv. 53.*

Preached before the University of Cambridge :—*1 Cor. vii. 29, 30.*

Preached at Henone Chapel, Peckham, and at Salters' Hall, London :—*Lam. v. 14, 15.*

In the Church of St. Swithin and St. Mary Bothen :—*Psalm cxlii. 3, 4, 5.*

At the Baptist Chapel, Bradford, Yorkshire :—*Isaiah xxii. 12.*

At Acre Lane Chapel, Clapham :—*Isaiah xi. 6, 7, 8.*

At the Octagon Chapel, Taunton :—*1 Thess. v. 2, 3, 4.*

At the New Road Meeting House, St. George's-in-the-East :—*Jeremiah ix. 21.*

In the Church of Bredon, Worcester :—*Isaiah xxvi. 9.*

At the Unitarian Chapel, Hackney :—*Isaiah xl. 6, 7, 8.*

At the Church of Kingstone, Kent :—*Isaiah xi. 6, 7, 8.*

At New Brentford :—*Job xxx. 23.*

At the Independent Meeting House, St. Neot's :—*Jeremiah ix. 21.*

At the Church of St. Mary-le-Strand, Westminster :—*Matthew xv. 13.*

At the Independent Chapel, Blackburn :—*1 Cor. vii. 29, 30, 31.*

At the Gravel-Pit Meeting House, Hackney :—*Jeremiah ix. 20, 21.*

In the Parish Church of Chiswick, Middlesex :—*Amos viii. 9, 10.*

In the Baptist Meeting House, at Bow, Middlesex :—*Lam. ii. 1.*

By the Vicar of Cressing and Curate of Risenhall, Essex :—*James iv. 13, 14.*

At Worship Street, Finsbury Square :—*Eccles. i. 1, 2.*

At Walworth :—*Isaiah xl. 6.*

At the Baptist Meeting, Egle Street, Seden :—*Eccles. viii. 8.*

In Albion Chapel, Moorgate :—*Daniel iv. 35.*

At the New Meeting House, Birmingham :—*Jer. xv. 9.*

At the Church of Harrow-on-the-Hill :—*2 Samuel xiv. 14.*

At St. George's Church, Hanover Square :—*1 Samuel xx. 3.*

At the Meeting House, Monkwell Street :—*Psalm xxxix. 5.*

At Salters' Hall, London, and at Plaistow, Essex :—*Jer. xv. 9.*

At Walthamstow, Essex :—*2 Samuel i. 27.*

At the Chapel, near Church Row, Hambstead :—*Eccles. xii. 5.*

At Baker Street Meeting, Enfield :—*Jer. xv. 9.*

At the Parish Church of Newbury :—*Gen. xxx. 1.*

At the Old Jewry Chapel in Jewry Street :—*Jer. ix. 23.*

In Wesley Chapel, Meadow Lane, Leeds :—*1 Tim. vi. 15, 16.*

At Fulneck :—*Ezekiel vii. 27.*

At the Synagogue, Denmark Court, Strand :—*Eccles. vii. 1, 2.*

At the Chapel, Wallingford, Berks :—*Ezekiel xxiv. 16.*

At Hassey-Lane, Leicester :—*Jer. xv. 9.*

By the Rev. M. R. Whish :—*Micah vi. 9.*

At Orange Street Chapel, Leicester Square :—*Gen. xviii. 25.*

At St. Mary's Church, Cambridge :—*Psalm cxix. 71.*

At the Parish Church of Haughton-le-Skerne, Durham :—*Job xxxiv. 18, 19, 20.*

In the Parish Church of Clembury, Salop :—*Eccles. ix. 8.*

At the Chapel of the East India College :—*1 Tim. ii. 1, 2, 3.*

At the Old Meeting-House, Birmingham :—*Psalm v. 15, 16.*

In the Garrison Chapel, Woolwich, and afterwards at Hilssea Barracks :—*Psalm xc. 16.*

At Bishop-Wearmouth :—*Jer. iv. 10.*

Sermon 2nd :—*Psalm xc. 11, 12.*

At Godstone, Surrey :—*Genesis* iii. 19.  
At the Parish Church of Ripley, Yorkshire :—*Psalm* cii. 11, 12.  
At the Parish Church of St. Mary, Islington :—*Job* xxxiv. 18, 19, 20.  
At Chatteris :—*Rev.* xx. 11—15.  
At Campden :—*Micah* vi. 9.  
At Hadleigh, Suffolk :—*Jer.* xv. 9.  
At Clapham :—*Micah* vi. 9.  
At Romford :—*Micah* vi. 9.  
At Hendon Square, Newcastle :—*Psalm* xxxix. 5.  
At St. Leonard, Foster Lane :—*1 Pet.* i. 24.  
At St. Pancras :—*2 Chronicles* xxxv. 24.  
At Enfield :—*Lamentations* v. 15.  
At Pimlico :—*Isaiah* xxvi. 20.  
At Newington Chapel, Liverpool :—*Genesis* xxxv. 16—20.  
At Ashford :—*Mark* v. 39.  
At Kilkenny :—*1 Peter* i. 24, 25.  
By Rev. C. F. Fenwick :—*1 Cor.* xv. 54.  
At Glasgow :—*Ezekiel* xxiv. 16.  
At Whitby :—*Luke* vii. 35.  
At Rayleigh :—*Jeremiah* ix. 20, 21.  
At Lancaster :—*Amos* viii. 9, 10.  
At Over :—*1 Kings* xiv. 12, 13.  
At Southminster :—*Deuteronomy* xxxii. 29.  
At St. Andrew Undershaft :—*Psalm* cxlii. 2, 3.  
At St. Martin-in-the-Fields :—*Eccles.* vii. 1.  
At Oundle :—*Matth.* vi. 10.  
At Walbrook :—*Prov.* xxviii. 1.  
At Episcopal Jews' Chapel, Bethnal Green :—*Rev.* iii. 19.  
At St. Margaret's, Durham :—*Gen.* iii. 19.  
At Mill Hill Chapel, Leeds :—*1 Cor.* vii. 31.  
At Newcastle-upon-Tyne :—*Micah* vii. 9.  
At Leeds :—*Jer.* xv. 9.  
At Weston Green Chapel, near Claremont :—*Jer.* ix. 21.  
At Mansfield :—*Lam.* v. 16, 17.  
At Cheshunt :—*1 Cor.* xv. 53.  
At Blenham :—*Genesis* xxiii. 6.  
At Roman Catholic Chapel, Stonehouse :—*Genesis* iii. 19.  
At Wisbeach :—*Jer.* viii. 15.  
At Buckden :—*Eccles.* xii. 7, 8.  
At Penzance :—*Eccles.* xii. 7.  
At Burnham :—*Luke* vii. 12.  
At Teston, Kent :—*1 Peter* i. 24.  
At Cambridge :—*2 Samuel* i. 17.  
At Shrewsbury :—*1 Peter* i. 24, 25.  
At Yardley :—*Heb.* xiii. 14.  
At Glasgow :—*Psalm* cxii. 6.  
At the Scotch Church, Sunderland :—*Deut.* xxxii. 29.  
Sermon 2nd :—*Matthew* xxvi. 42.  
At Bradfield and North Walsham :—*Isaiah* xl. 6, 7, 8.